

AD644113

MILITARY ASPECTS OF INTERNATIONAL RELATIONS
IN THE DEVELOPING AREAS

Constantine C. Menges

December 1966

CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION			
Hardcopy	Microfiche		
\$3.00	\$.65	106	88
ARCHIVE COPY			

P-3480

Any views expressed in this paper are those of the author. They should not be interpreted as reflecting the views of The RAND Corporation or the official opinion or policy of any of its governmental or private research sponsors. Papers are reproduced by The RAND Corporation as a courtesy to members of its staff.

This paper was originally written in July 1965 and revised by the author in July and August 1966.

ACKNOWLEDGMENTS

The author wishes to acknowledge the financial support received from the National Security Studies Fund of the University of Wisconsin which assisted during the writing of this article. As will be evident from the footnotes and citations, this article draws heavily upon the only available study of arms control in the developing areas. This study, Regional Arms Control Arrangements for the Developing Areas, was directed by Professor Lincoln Bloomfield at the M.I.T. Center of International Studies. The specific regional analyses were written by scholars at three universities: Professor W. T. R. Fox headed the Columbia University study of arms control in Latin America; Professor A. J. Meyer directed Harvard University's analysis of the Near East; and, at Boston University, Professor Gibbs supervised the North and sub-Saharan African study. The author had primary responsibility for the research and writing of the Latin American section. The report was subsequently published as: Regional Arms Control Arrangements for the Developing Areas, Center of International Studies, Massachusetts Institute of Technology, 1964.

CONTENTS

ACKNOWLEDGMENTS	v
-----------------------	---

Section

I. INTRODUCTION	1
Arms and International Politics:	
A Classical Viewpoint	3
II. ARMAMENTS AND INTERNATIONAL POLITICS	
IN SIX REGIONS	7
Near East	9
South Asia	18
Southeast Asia	29
North Africa	33
Sub-Saharan Africa	37
Latin America	42
Modifications of the "Classical" Theory	47
III. ARMS CONTROL IN THE DEVELOPING COUNTRIES	50
Special Characteristics of Arms Control	
in the Developing Areas.....	50
Survey of Relevant Arms Control Measures ...	58
Conclusion	88

Charts and Tables

A. EGYPTIAN-ISRAELI MILITARY COMPETITION -	
1955-1963	11a
B. NUCLEAR POTENTIAL IN THE DEVELOPING	
AREAS BY REGION	62a
C. MUNITIONS MANUFACTURING CAPACITY OF	
DEVELOPING COUNTRIES - ACTUAL	
AND ESTIMATES OF POTENTIAL	71a
D. SOURCES OF MILITARY ASSISTANCE FOR	
THE DEVELOPING AREAS BY REGION, 1963	83a
E. COMMERCIAL ARMS TRADE WITH THE	
DEVELOPING COUNTRIES	86a

APPENDIX I

Military Forces in the Developing Countries --	
Manpower Budgets and Proportion of	
National Income: Six Regions	90

APPENDIX II

Developing Countries Associated with	
Western Defense Pacts and Other	
Guarantees of Territorial Integrity	96

MILITARY ASPECTS OF INTERNATIONAL RELATIONS

IN THE DEVELOPING AREAS

Constantine C. Menges

Consultant to The RAND Corporation, Santa Monica, California

I. INTRODUCTION

This essay will attempt to take a broad view of one facet of international politics in the developing areas -- the relationship between armaments and patterns of State relations.¹ By isolating a specific and identifiable factor usually of great importance in the relations of sovereign states -- military power -- and taking a large number of diverse countries in six different regional contexts, it may be possible to capture the essence of major trends and observe important departures or similarities in the international political role of armaments in comparison with the European state system which has so long provided the only basis for theory and analysis. This is an exploratory effort: the brief outline of one branch of conflict theory which follows will not be satisfying to students of international conflict; the discussions of the six regions will no doubt appear superficial to the area specialist -- though very little has been written on regional patterns

¹"Developing" countries now seem to include not only the new, i.e., post World War II African, Near Eastern, and South East Asian states, but also the "old" states of Latin America, the Near East; the common element that characterizes them is either a per capita income figure below some "respectable" level, e.g., \$1,000 (US) per annum; self definition as a developing country; or, inclusion in reports of some international agency or scholars study under the heading of developing!

of international politics; and, finally the broad comparisons and perspectives derived from the regional analyses may seem overdrawn and occasionally artificial.

However inadequate this beginning, the merit of the essay lies in the attempt to achieve a larger perspective on arms and international politics and in the creative criticism it hopefully will encounter so that more thought will be devoted to a problem which should be of interest to scholars and statesmen.

Arms and international politics:
a classical viewpoint

Explicitly or implicitly, the contemporary view of inter-state arms competition and war is directly derived from analysis of the historical experience of the European state system.¹ A dominant theme of these analyses is the inevitability of competition and therefore conflict among any group of states in contact with one another. States, by their very nature are seen as aggressive, opportunistic, ready to take advantage of any weakness. As a result leaders must constantly guard against falling behind in the competition for power.² They must prevent any state or coalition of states from having the ability to impose any political

¹ Quincy Wright, A Study of War, Chicago: University of Chicago Press, 1942, (revised edition 1965); Kenneth Waltz, Man, the State and War: A theoretical analysis, New York: Columbia University Press, 1959, summarize various theories about the causes of war among organized communities.

² Hans Morgenthau, Politics Among Nations, New York: Knop, 1960 (3rd edition); gave the most forceful, cogent modern expression to this viewpoint; though Machiavelli's The Prince gets the same point across.

terms. In the competitive and all but normless international environment, states must retain their independence by means of balance of power diplomacy, or increases in national military power or both.¹ Within the context of this anarchic international environment, there seem to be two kinds of motivations for arms competition: anxiety about the intentions of other states resulting in "defensive" arming; and, desires for conquest or a more influential international position resulting in "aggressive" arming.

What then happens when states arm against one another. One hypothesis states that balance-of-power politics leads to the formation of blocs, that this tends to bi-polarity and that bi-polar international competition generally, if not inevitably, ends in war.

¹Huntington calls alliances an "external" means of balance of power politics in contrast with the "internal" means of increasing the arms inventory. S.P. Huntington, "Arms Races" prerequisites and results," Public Policy, Cambridge: Harvard University Press, 1958, pp, 41-86.

While this pattern has occurred three times in this century among the states of the European system, does it necessarily apply in the developing areas? The assumption that "bi-polarity leads to war" is partly derived from the discussion of the dynamics of two unit arms races, where the process of competition is continuously accelerating in an upward spiral which can only be broken by the elimination of one side through defeat in war.¹ A major modification of this formulation is Huntington's distinction between quantitative and qualitative arms competition.² He pointed out that improvements in military technology, not mere numbers, have increasingly been an important component of military power.³ In this situation arms competition tends to

¹Quincy Wright (ed.), Richardson, Lewis F., Statistics of Deadly Quarrels, Pittsburgh Boxwood Press, 1960, uses a mathematical analysis of past European arms races to show the process of acceleration as each participant's additional acquisitions raise the arms requirements of the other, in turn causing the first to seek yet more armaments.

²Huntington, op. cit.

³For this reason, the Richardson arms race equations which served to measure ever-increasing inventories of weapons and military manpower did not serve as an accurate measure of relative strength or military effort.

occur in repeated cycles of efforts to obtain qualitative and quantitative leads rather than in a long, continuous expansion of weapons inventories.

After examining each of the six regions, we will consider to what extent these notions of balance of power politics and arms competition apply to the non-European states.

II ARMAMENTS AND INTERNATIONAL POLITICS IN SIX REGIONS

No fact of international politics in the post World War II period is more clear than the gaps in the comparative military power of states caused by the continuous application of advanced industrial technology to war uses. Three categories of states can be defined by the geographic range of their effective capacity to use to threaten military action: the two superpowers with a global span; major powers such as France and Britain which can intervene militarily in one or more geographic regions outside their own, and thirdly, the regional powers which are restricted in any credible use of military force to their immediate geographic vicinity. This international military stratification means that there are in effect two rather distinct types of international arenas where force plays a tangible role in diplomacy. There is a primary arena where the superpowers and their most important allies bargain, threaten, deter, and mount a continuous effort to maintain reciprocal military preparedness by means of the most advanced military technology. And a secondary arenas exist

where sets of regional powers may also, at times, arm, threaten and deter each other, but at a quite different level of military technology and only within a limited geographic space. Brazil and Egypt, for example, though perhaps equal in military potential, could not fight a war or threaten each other with serious military action.

This part of the paper will attempt to outline some of the relationships between the primary and the regional powers as well as the character of regional international military relations.

A. The Regions

NEAR EAST

The Near East is the most heavily armed region in the developing areas. The total of standing armed forces numbers over one million and the military expenditures reach the impressive sum of \$1.4 billion annually. It is quite obvious, therefore, that armaments might have an important impact on Near Eastern state relations.

There are three separate but potentially intersecting arenas of military international relations and deterrence in the Near East: the Cold War participation of Turkey and Iran; intra-Arab block relations; and, the Arab-Israel conflict. This pattern of simultaneous participation in different sets of international competition among geographically close states adds a unique complexity and potential bizarreness to international relations among these countries.

The Cold War has had several interesting effects on international politics in the Near East. Two states with borders along the Soviet Union, Turkey and Iran, are direct allies of the United States and United States military assistance has strengthened both country's armed forces for the purpose of meeting possible Soviet aggression. Turkey's military

establishment is far superior to any in the Near East,¹ yet there has been no apparent attempt by other countries in the region to balance or match forces. The absence of any pattern of automatic defensive arming seems to reflect the confidence of other Near Eastern governments in the peaceful intentions of Turkey and Iran and, perhaps, confidence in their ability to get diplomatic and military support from the Soviet Union in case of Turkish or Iranian aggression. It further suggests the possibility that some states in a region can be armed for the purpose of meeting some major power threat without necessarily stimulating a 'ricochet' arms build-up by other states in the region. Nevertheless, in the event of some arms control negotiations, it is quite possible that the existence of the large Cold War armies might pose an obstacle to arms reductions elsewhere in the region.

The Arab states in the Near East are all joined in the Arab League, a loose and occasional alliance. Despite the unifying ties of religion, language, pan-Arab symbolism, and a common enemy (Israel), these countries have not eliminated

¹ Turkey has 14 well-equipped infantry divisions, a modern navy, and a large modern air force consisting of 450 planes, mainly F-100's. Regional arms control arrangements in the developing areas, Part III, "Arms control in the Near East", Massachusetts Institute of Technology, Center of International Studies, draft report of July 1964 (later published by The Center of International Studies), p. 36. Hereafter cited as MIT/CIS Regional arms control (with page reference keyed to the appropriate part of the report).

the use and threat of violence in inter-state relations. Most persistent as a cause of hostility and tension is the constant intervention of Egypt in other Arab state's internal affairs. Usually, Nasser's intervention attempts to change some aspect of foreign policy or to replace the government by a more 'friendly' one. Propaganda, subversion, assassination and the coup d'etat have been the means most often used to accomplish these purposes. At time, these more subtle forms of aggression have been stepped up to include direct military threats. In such cases, two or three Arab states usually form a defensive alliance until the situation is resolved. Alliance, rather than direct arms competition, thus seems the chosen method for meeting threats from within the Arab bloc.¹ However, the gradual transformation of the Yemen civil war into a proxy war between Egypt and Saudi Arabia may have marked the beginning of a new phase of belligerence between the monarchies -- Saudi Arabia, Jordan, Kuwait, Iran, and Yemen - and the "pro-Nasser" states -- Egypt, Iraq and Syria.² Coercion, then, might be applied in the more traditional manner of

¹ Though had Quasim not been assassinated and overthrown by the Nasser-managed coup d'etat, it is conceivable that Iraq, after it settled the Kurdish rebellion, might have been a military as well as political rival to Egypt.

² In May, 1965, as the Yemen war continued and expanded with more than 50,000 troops engaged on each side, it was reported that Saudi Arabia has been shopping in the West for newer and more weapons, with the possible intention of spending \$100 million. New York Times, May 23, 1965.

CHART A
EGYPTIAN-ISRAELI MILITARY COMPETITION - 1955-1963

Country	Year									Def. Expend.
	'55	'56	'57	'58	'59	'60	'61	'62	'63	
Egypt	6.5	6.5	8.0	7.1	6.7	6.6	7.5	8.6	8.8	As proportion of GNP in %
Israel	6.5	6.9	13.0	8.0	8.0	7.7	7.2	7.0	8.2	
Egypt	64	66	87	85	84	88	104	120	138	Million Egyptian pounds ¹
Israel	139	181	393	239	324	348	384	443	580	Million Israeli pounds ²

Source: MIT/CIS Regional arms control, p. III-15, III-20.

Notes:

¹ "It has been estimated that these figures would be increased by 60-70% if indirect costs were included." (MIT/CIS Regional arms control, p. III-15.)

² These figures do not include classified portions of the budget. (MIT/CIS Regional arms control, p. III-20.)

state relations -- military threats and preparations resulting in a limited degree of 'defensive' and perhaps 'aggressive' arms competition.¹

The Arab states and Israel have confronted each other in a long and bitter struggle. Egypt is clearly the major participant on the Arab side; Syria and Jordan are more or less reliable allies against Israel; while, the other Arab states offer rhetorical support for pan-Arab objectives.

In many respects the arms competition between Egypt and Israel is one of the most dangerous in the six developing areas. Since 1955, there has been a steady increase in the amount of money allocated by both Egypt and Israel to military purposes. Their expenditures as a proportion of the GNP have also increased. Although the tempo is uneven and there has been no continuous upward spiral, the pattern of increases corresponds neatly to the classical arms race theory since there is a discernible action reaction pattern.²

¹ Lebanon attempts to remain outside of military blocs and confrontations -- much in the manner of Switzerland in the 1918-1939 period.

² The MIT study offers this analysis of initiative and response in the arms competition: Egypt: 1955-57, a sharp rise in military expenditures, a decline to a temporary low in 1960 (though still higher than the 1955 starting point), and the beginning of a new increase in 1960 passing the previous high point in 1962. Israel: an abrupt, drastic rise in 1956-57, followed by a sharp, then gradual, decline from 1958-62, which then changes to what seems to be the beginning of a sharp rise. "In general, the initiative for changes in the level of military effort seems to have come from Egypt, while Israel has merely responded." (MIT/CIS Regional arms control, p. III-19.)

The most important and ominous aspect of this arms race is the fact that both states are continuously engaged in efforts to obtain and/or produce more modern and destructive weapons. This qualitative competition has already resulted in an initial offense-defense race. These distinct changes in military hardware are strikingly similar to the cyclical structure of the Soviet-American technological arms race.¹ Besides the attempt to obtain constantly newer and better weapons from the major powers,² the qualitative competition has extended into attempts

¹Herman Kahn, On Thermonuclear War, 1960, passim.

²Egypt's Soviet jet aircraft (MIG-15 and MIG-17s), acquired in 1957, have been replaced by the modern fighters used in the Communist Bloc (MIG-19 and MIG-21s). The Soviet Union has also provided 11-29 medium jet bombers and "an unknown number" of SAM-11 surface-to-air missiles which have been emplaced around Cairo, the Aswan dam and at both ends of the Suez Canal. Israel has several hundred French jet aircraft comparable in performance to the latest Egyptian planes. Egypt has over 1000 pieces of armor, almost all Soviet, while Israel has approximately 600, including American, French, and British equipment. Egypt's navy is far superior to Israel's and its Soviet-supplied equipment includes 10 W-class submarines, 7 destroyers and 6 Kozmar motor-torpedo boats equipped with ship-to-shore guided missiles. (MIT/CIS Regional arms control, p.III-17). In 1964 Israeli missions were reported shipping for the latest-model NATO equipment for modernization of its armored and naval forces.

to achieve some degree of self-sufficiency in military production.¹ Furthermore, Israel and Egypt are the only countries beside India in the six regions that have embarked upon completely independent programs of military research and development. The

¹ Egypt manufactures a variety of conventional arms and since the late 1950s has developed and produced jet engines and is manufacturing some jet trainers under license from the Messerschmitt Company of Spain. Israel also produces a twin-jet trainer under French license. The Egyptian HA-200 and HA-300 is held inferior to the Fouga Magister produced in Israel. (MIT/CIS Regional arms control, p. III-21, III-24).

qualitative arms race in the Near East is moving into the realm of surface-to-surface missiles and quite possibly nuclear and CBR weapons.¹

¹ In July 1961, Israel fired the Shavit II, an unguided solid fuel missile intended for high altitude. A year later Egypt fired two V-2-type liquid fuel missiles and, since then, has developed two types -- one with a range of 350 miles and the other 180 miles, unguided and able to carry roughly one ton of conventional explosive. Comparing the military value of these Egyptian missiles, the MIT study summarized the conflicting views:

All agree that they are very expensive, costing up to \$500,000 apiece, and that their present inaccuracy suits them only for saturation bombing against large urban complexes. From these facts some experts draw the conclusion that, unless the guidance system is greatly improved, significant production of the present type of missiles is unlikely because the effect of massive missile bombardment would not be commensurate with cost. The same effect might be achieved at less expense with manned bombers, which have the advantage of versatile and more controlled use. Others argue that, given the high degree of penetration of the missiles and the exceptionally heavy concentration of population and strategic targets in the Tel Aviv area, the high cost of a significant missile offensive capability would appear justifiable; therefore, mass production of the missiles even in their present state is to be expected. (MIT/CIS Regional arms control, p. III-17.)

It is certain that Israel too is developing its own missiles and there is also a very high probability that both sides have developed and stocked some CBR weapons as a deterrent against a first strike by the other. It is also suspected that each country is attempting to develop nuclear weapons.

A final word needs to be said about the possibilities that the three more or less separate spheres of Near Eastern military international relations may intersect. If hostilities developed between two countries in what are now different spheres, it might result in a pattern of reactive arming which would greatly increase the arms level in the region. For example, the Shah of Iran has been said to fear military attack by Arab nationalist forces using Iraq as a base.¹ In such an event, Turkey would probably aid Iran and this could lead to an accelerated arms race between a Turkish-Iranian coalition supplied with United States arms and a Nasserite Arab Bloc supplied by the Soviet Union. And, if the Arab states increased their arms build-up to meet a Turkish threat, it is obvious that Israel would have to meet the new Arab danger.

Another possibility is that, if one or two states obtained certain kinds of mass-destruction weapons (missiles with nuclear or CBR warheads), the situation would appear so threatening to all states within range

¹ This would only occur if Egypt were able to form a solid and effective working alliance with several Arab states. But the concern still exists. An indication of this concern is the deployment of a considerable part of the Iranian armed forces in the south near the Iraq border. (MIT/CIS Regional arms control, p. III.)

that some form of defensive arming or alliance might be undertaken by all states in the region bringing the three "separate" spheres into contact at the level of nuclear deterrence. One form such contact could take is an agreement among all the states in the region to unite against the first user of mass destruction weapons -- regardless of their other disputes.

What is the role of the major powers? Since they are the primary source of armaments, the possibility of indirect political competition through military assistance to Near Eastern governments currently exists and may increase with a further breakdown in Arab unity. The Soviet Union, poses a direct military threat to Turkey and Iran; but as long as the United States' commitment remains firm and credible, a counter-balance exists which is likely to prevent any need for further expansion of the Turkish and Iranian armies. But there will be a need for sizable Turkish forces until further progress in Soviet-American disarmament is made. The size of this force will act somewhat as a brake on the amount of possible quantitative arms controls in the Near East -- but in view of the other political problems this obstacle is of relatively minor importance.

SOUTH ASIA¹

More than any other developing region, South Asia's international system is penetrated in military terms by the rivalry of the major powers." There are in effect two intersecting international military systems: the regional and the regional-major power.

The area contains two powerful states, India and Pakistan, locked in a bitter communal-national dispute for two decades. Surrounding these two power centers are four comparatively small and weak states -- Nepal, Burma, Ceylon, and Afghanistan. The power differential between these small states on the rimland of the South Asian subcontinent and India and Pakistan prevents any possibility of their playing an important independent role in the regional or regional-major power international systems. In the time-proven manner of small powers, these states are neutral in both arenas² and are acting in a manner completely analogous to the behavior of India in the major international military arena.

¹This section owes a large debt to the stimulating analysis of South Asian international relations by Wayne Wilcox (India, Pakistan and the Rise of China, Walker: New York, 1964).

²A. B. Fox, The Power of Small States, Chicago: University of Chicago Press, 1959.

The major powers entered the South Asian international arena in two phases. During the first phase the United States, seeking allies and strategically important bases on the rim of the Soviet Union, made an alliance with Pakistan. Though India has formal defense ties with the United Kingdom, its policy of neutralism in the major power international competition was aimed at securing economic aid and favorable relations with countries in both ideological camps. In particular, India sought economic assistance from both the Soviet Union and the United States and cordial relations with the giant on its border -- the Chinese People's Republic. During this period, Pakistan was the international enemy both in rhetoric and military planning.¹

The second phase of major power involvement began in 1959 when the threat China posed to South Asia began to be clearly perceived.² At this time, India sought to gain from the Sino-Soviet rift by attempting to obtain Soviet support against the Chinese. Wilcox terms India's policy one of dual alliance: a Soviet Union and a United States-United Kingdom tie. Actually it was only after the major Chinese attack in October 1962 that the two sets of friendly powers became in any sense allies. At this time, the United States and Great Britain immediately provided

¹ Wayne Wilcox, op.cit., p. 38

² Ibid, pp. 58-61

large quantities of military assistance; the Soviet Union, on the other hand, far less helpful and more ambiguous in its position, sent "some jet planes on a slow boat and offered to build an airplane factory in the future."¹ In any case, in the 1962-1965 period, India has received military aid from and has been protected by a more or less tacit 'dual alliance' in which both major powers take an active role.

During this same time period, Pakistan was also moving toward a dual alliance of its own. With customary diplomatic skill, China's leaders have applied the proven technique of divide et impera to South Asia. Thus, while gradually applying more pressure against India after 1959, friendly overtures were made toward Pakistan. In 1961, to tidy matters up before the coming offensive against India, China signed treaties with Pakistan and Burma settling existing boundary differences. Following that balance-of-power considerations (the enemy of my enemy is my friend) and the wiles of intelligent Chinese diplomacy have increasingly led Pakistan into some sort of tenuous relationship with China, which may or may not live up to the Pakistani boast that any Indian aggression would "involve the largest state in Asia" on Pakistan's behalf.²

¹ Wilcox, op.cit., p. 74

² Comment by the foreign minister of Pakistan, Zulifaar Ali Bhutto, to the National Assembly of Pakistan. Quoted in Wilcox, op.cit. p. 84.

By 1965 the growth of linkages between regional and major powers had led to what can be described as a double system of dual defensive alliances. But there was an important difference between the two sets of dual alliances; India's were both directed at the same opponent -- a major power, while one of Pakistan's ties was aimed at its regional antagonist.

DOUBLE SYSTEM OF DUAL ALLIANCES

State	Allies	Type	Quality
Pakistan	United States -- CENTO vs. Soviet Union)	formal	reliable
	China (vs. India)	informal	undefined
India	United States/Great Britain(vs. China)	informal	reliable
	Soviet Union (vs. China)	informal	probably reliable only to point of material support in defensive action

How have these two sets of inter-state disputes affected the pace and type of armament in South Asia? It is difficult to say whether India and Pakistan have yet had an arms race. Certainly there has been arms competition and a conscious program of anxious and probably belligerent arming in both countries since partition in 1947. In the first two years of independence, India and Pakistan fought four bitter small wars; the two in 1948 being the consequence of deliberate attacks launched by India in Hyderabad and Kashmir. But, until brief fighting

broke out in the Rann of Cutch in 1965, there had been no large-scale combat for eight years. In terms of arms, Pakistan must have lagged considerably behind India at first, but by 1955 an Indian study estimated that India was only slightly ahead of Pakistan in land and air forces though its navy was considered stronger.¹ Available information suggests that both countries were content to maintain forces more or less equal in strength and armament. As a whole, between 1949 and 1955, military budgets in both countries showed gradual increases, though the pattern was somewhat uneven. Manpower levels remained more or less constant.

¹The estimates were as follows:

	India	Pakistan
Army	300-500,000 1-2 armored 5-10 infantry	200-400,000 1-2 armored 5-10 infantry
Air Force	15-20 jet fighter sq. 10 bomber mari- time reconnais- sance sq.	10-15 jet fighter sq. under 10 bomber reconnais- sance sq.

Source: Indian Council On World Affairs. Defense and Security in the Indian Ocean Area, New Zealand, 1958. Appendix II, as reproduced in Wilcox, op.cit., p. 127.

Did the United States' alliance with Pakistan have a noticeable effect on regional arms competition? Wilcox describes the advantages for Pakistan of the 1954 CENTO pact:

At the stroke of a pen, (Pakistan) would receive an alliance with the most powerful state in the world, a ready-made set of friends and allies immune to seduction by India ... Pakistan had successfully frustrated Indian regional policy ... and would now begin to build a military establishment ... with modern equipment. ¹

India's verbal reaction was quite violent; India denounced the pact as dangerous to the stability of the regional balance of power and argued that,

...no donor state can control the use of arms since they are held by another state, and guns that could shoot communists would also shoot Indians. ²

But, India made little or no military response to this first penetration of a major power's military resources into the regional system. There was an increase in Pakistan's military budget and no doubt the modern United States' equipment significantly improved the quality of its forces, yet there was no major ricochet effect on the regional arms competition.

And what of the second period of major power entrance into the region? In 1960-61, India sharply increased its military budget and after the invasion of 1962 both budget

¹ Wilcox, op.cit., p. 42.

² Ibid., p. 42.

and manpower strength sky-rocketed. The 1960-61 budget of 311 million rupees rose to 814 million in 1963-64 and the size of the armed forces went from about 530,000 in 1961 up to a planned 850,000 in 1964-65.¹ At the same time, India took several steps forward in establishing its own military production facilities. Beginning in 1959 with the production of a British transport, India's aviation industry by 1961 was testing the first prototype of an Indian-designed supersonic jet fighter.² In 1963, the Soviet Union delivered on its promise to build a jet fighter production facility as well as to donate new MIG fighters and air-to-air missiles. India has also received large quantities of military equipment from the United States and Great Britain since the Chinese attack.

Pakistan's reaction to its neighbor's military build-up was to protest in the same vein as India eight years earlier: there was no guarantee that military aid to India would be used only against Communist China. But again, the increase in one of the regional powers' military capabilities did not lead the rival into an immediate crash military expansion -- though this may still come.

The lack of arms competition is partly due to Pakistan's inability to produce heavy weapons and to the fact that its

¹Wilcox, op.cit., p. 89.

²Ibid., pp. 89-91. This first flight was not too successful; the plane did not succeed in breaking the sound barrier.

major arms supplier, the United States, will not provide unlimited quantities of arms. Additionally important is the potential military power differential between Pakistan and India with the latter being quite far ahead in technology and industry and having a GNP and population more than four times that of Pakistan. Assuming equal capacity to get military aid from major powers, it is clear that in an arms race with conventional weapons, India could always stay far ahead of Pakistan if it so chooses. This power differential may partially explain why in 1954 India made no military responses to Pakistan's increase in armaments -- a confidence that in case of need, India would always be able to mobilize and field a larger force than its smaller neighbor. In the same way, during the period 1962-64 Pakistan could not possibly match the military resources of India so its response, in classical realpolitick fashion, was to seek a strong ally -- China.¹

In 1964 China detonated its first nuclear weapon and in early 1965 grew yet another mushroom cloud. What does this portend for the future in South Asia? If by 1968 or 1969 China possesses even a small nuclear arsenal and uses subtle or brutal nuclear blackmail against India, what will

¹This analysis supports the theory advanced by Huntington: arms races will be most competitive, other things being equal, among states at approximately the same technological and industrial level. Compare Egypt/Israel and India/Pakistan. See Samuel P. Huntington, "Arms Races: Prerequisites and Results," Public Policy, 1958.

India's alternatives be? One is a crash program to develop its own nuclear weapons, another is to hope for some kind of credible nuclear guarantee from one of the major powers, and a third is to be given a small nuclear deterrent by the United States, Great Britain or the Soviet Union.¹ There is, in other words, a great possibility that Chinese threats could make it absolutely necessary for one developing country to cross the nuclear threshold. This in itself would be an unfortunate and perhaps dangerous precedent. If India possessed any kind of nuclear delivery capability, it is practically certain that the regional arms competition would become a nuclear one also. The destructiveness of nuclear weapons would no doubt make it seem essential to Pakistan's security that it obtain at the very least a capacity to deliver a few nuclear weapons on Indian population centers -- as a proportional deterrent against any threats or aggression from its nuclear armed opponent. Political means to correct the nuclear/conventional weapons imbalance would seem almost useless because in all probability, once the nuclear threshold is crossed, no guarantee from a remote nuclear power or weak nearby one would be sufficiently credible or trusted.

¹It is nearly inconceivable that the Soviet Union would donate any important offensive components of a deterrent force.

Thus with threats alone, a nuclear-armed China might force the growth of two more nuclear powers and set the stage for a South Asian nuclear war.¹

The arms control priority for South Asia clearly is some form of ban on nuclear and CBR weapons. Depending on China's military capabilities and diplomatic strategy, keeping the South Asian arms race at the level of conventional armaments may only be possible if one or more nuclear powers are willing to bear the burdens and risks of providing India with a credible guarantee against China.

It is also possible that the kaleidoscope of regional politics may shift and permit Pakistan and India to compromise their differences in the face of the more serious

¹ Perhaps to prevent such an unfortunate turning point, Pakistan, if it perceived that it had no chance of obtaining nuclear weapons, would wage a preventive war before India could develop its own or receive them from abroad. This would be a rational move under some circumstances. Again, Huntington's theoretical insight might be validated. See Huntington, op,cit., passim.

Chinese threat.¹ In that event, Chinese nuclear threats would probably not force both India and Pakistan to acquire nuclear protection though it is still possible that India would seek its own deterrent.

¹ Wilcox mentions some hopeful signs: two attempts in 1959 by President Ayub Khan to open negotiations (these were rebuffed by India); the role India's new Prime Minister Shastri played in obtaining in 1964 the release of the Muslim Kashmiri separatist Sheikh Abdullah from Indian detention (a separate muslim-ruled Kashmir may be the only compromise possible); the mutual efforts to improve relations in 1964 which were cut short by Nehru's death. But the terrible communal riots in East Pakistan and East India and the bitter Kashmir debates in the United Nations, also in 1964, cast shadows. Wilcox, op.cit., pp. 86-95. Of course the open military hostilities in the Rann of Cutch in 1965, despite the truce negotiated by Shastri and Ayub, give little cause for optimism.

SOUTH-EAST ASIA

The South-East Asian countries are the border lands of an aggressive major power, China. In part to prevent the further expansion of China, the United States has committed itself to defend several states in this area. In South Asia, political interest and geography join to pit two major powers against each other with the regional states serving as the immediate stakes of the struggle.

The reactions of the small states to both sets of major powers are varied, opportunistic and changeable, conditioned primarily by their perception of shifts in the regional balance of power between the communist and non-communist antagonists. Basically, three patterns of reaction can be seen. Until 1966, Indonesia increasingly moved from professed neutrality to a form of propaganda and verbal cooperation with China which under certain circumstances could have developed into some kind of alliance.¹ Burma and Cambodia seek to ensure an ultimate "Finland-type"² of autonomy by maintaining a neutrality partial to the most aggressive power. Only three countries have

¹The failure of a communist putsch in October 1965 and the assumption of power by the military has altered the pro-communist course.

²After the settlement in favor of China of the frontier dispute between Burma and China, a Burmese official remarked that, "... Burma was on the periphery of a great power, and would choose to be a Finland and not a Hungary if it had to become a satellite." Wayne Wilcox, India, Pakistan and the Rise of China, Walker: New York, 1964.

chosen to resist present and potential aggression by obtaining United States political and military support. The comparatively large armed forces of Laos, Thailand and South Vietnam reflect the desire and need to defend existing governments from serious internal security threats generated by coalitions of indigenous groups and foreign agents.¹

War in any of the three countries with United States military support could turn into a direct confrontation between the United States and China, or China allied with the Soviet Union. And, unlike the more complex situation in South Asia, there is hardly any chance that the Soviet Union would aid any of the South-East Asian countries to resist direct Chinese attack or Communist-sponsored national liberation movements.²

¹Note the different timing of the communist campaigns: Malaya, 1954-58; Laos was under severe attack from 1959 to 1961; a negotiated settlement (partly a United States fall-back to the "secure line" in South Vietnam); a steady increase in the scope of the Vietnamese war on both sides, 1961-65; early 1965, the formal establishment of the Thailand Liberation Front coincides with the first announcement of the assassination and kidnapping of government officials and village headmen in North East Thailand, (New York Times, February 12, 1965). After the guerilla war in Malaysia ended, the size of the armed forces decreased from 20,000 in 1958/59 to 8,000 by 1963. In 1964 there was a major increase to 12,000.

²Under some circumstances Indonesia might have been an exception to this flat prediction.

What of the military aspects of international relations within the region? In the 1954-60 period the conventional armed forces of South Vietnam were constantly increased in order to match and deter the 300,000-man army kept intact by the Hanoi regime. Aside from this, there has been no qualitative or quantitative arms competition between the states within the area.¹ Arms levels in the states bordering China are high and will continue to remain so as long as the threat of indirect aggression exists, but such armament does not involve or anticipate military competition among the smaller states.

The reasons for Indonesia's huge military establishment have never been clear; possibly the Soviet Union hoped to build a modern military establishment in South-East Asia in order to win over the Indonesian military elite and at the same time equip a friendly government with the means to act as an aggressive proxy against the small states or even Communist China. Nevertheless, the enormous size of the Indonesian armed forces has not caused other states within range to form alliances or arm in defence probably because they hoped that geography and the major powers would guarantee their security in the event of Indonesian bellicosity. This is illustrated by the "confrontation" with

¹Beginning early 1965 Thailand began to gradually increase its police and military forces in anticipation of North Vietnamese guided insurgency. But this is different both in kind and quantity than an effort to deter a North-Vietnamese attack with conventional forces.

Malayasia (1961-66). There could hardly have been a "classical" arms race because the disparity in population, economic resources and existing military capability (12,000 vs. 396,000 men) made it impossible for Malaysia alone to have had any chance of deterring, stalemating or defeating Indonesia's armed forces in conventional war. Malaysia had, therefore, been forced to rely on alliance with Great Britain as a means of meeting the regional threat. Note that, under some conditions, the Indonesia-Malaysian dispute could also have become a conflict between the two sets of cold war opponents, Great Britain and the United States vs. China.

NORTH AFRICA¹

War and arms have played relatively little part in the North African state system and balance of power politics has not developed within the region. There is, however, the serious threat of changes toward more belligerent international relations. The Algeria-Morocco war of October 1963 indicated a shift of this sort. If the United States had acceded to Morocco's request for arms to match those supplied Algeria by the U.A.R. a serious arms race could have started. But the war was brief and conciliation by the Organization of African Unity was successful in bringing about negotiations and initial agreements. Most importantly, there has been no subsequent arms competition or build-up between Morocco and Algeria.

This war and its aftermath highlight elements of future danger and instability in North Africa. The initial cause of the Algeria-Morocco conflict was a border dispute over supposedly oil-rich lands. Similar potential disputes exist between other states. Tunisia claims certain Algerian territory; oil-rich, thinly-populated and militarily weak, Libya is vulnerable to future territorial demands; and, Morocco's irredentist political faction claims, in addition to parts of Algeria, all of

¹The North African regional state system is very new, coming into existence in 1955.

of present Mauritania and the remaining Spanish territorial claims and temptations provide the setting for potential violent competition.

Nevertheless, the precedent set by the swift settlement of the Algeria-Morocco conflict augurs well for the future, as does the unilateral declaration by Tunisia that its armed forces are for defense only, and that its territorial claims will be pressed only by means of negotiations.² The size of each state's armed forces has also been relatively stable over the 1960-65 period. Morocco reduced its forces below the level maintained prior to independence and the newly independent Algerian government reduced its army from 120,000 to 65,000 in little more than a year -- despite internal and foreign military difficulties.³ A further sign of reciprocal pacific intentions is the absence of any noticeable competition for superiority in the advanced conventional weapons.⁴

¹MIT/CIS Regional arms control arrangements in the developing areas, Part IV, "Arms control in the Near East, Massachusetts Institute of Technology, Center of International Studies, draft report of July 1964 (later published by The Center of International Studies) p. 36. Hereafter cited as MIT/CIS Regional arms control (with page reference keyed to the appropriate part of the report).

²Ibid., p. 11.

³Ibid., pp. 52-53

⁴Ibid., p. 51.

What of relations with other countries? The North African states are involved in two ideological and trans-national movements: pan-Arabism and pan-Africanism. As a result, they could play an important role in the struggle against the "external enemies" of these two vague constellations, Israel and the white bastions -- Mozambique, Angola and South Africa. Nevertheless, in the long Arab confrontation with Israel the North African states have never offered more than lukewarm verbal support. And even this may be gradually withdrawn as other governments follow the example of Tunisia's President Bourgiba who, in early 1965, proposed that an attempt be made to end the Arab hostility toward Israel. And, although Algeria under Ben Bella gave active military support to the guerrilla forces being established by some black African states, the possibility that this type of indirect support would involve North Africa in any direct confrontation or competition with the areas governed by white minorities is slight. It seems unlikely that strong military links with contiguous regions will develop.

Neither do the major powers, Communist or Western, pose a direct military threat nor are they likely to in the next five years. But there is always the possibility that, as guarantors of territorial integrity, the major powers could polarize the North African states with subsequent deleterious effects. Currently, the North African States are receiving military assistance from countries in both major blocs. This of course leads to the danger that competitive donation could stimulate some measure of arms competition. At the same time, however, the withholding of

military aid may help prevent an arms race as occurred
in the Algeria-Morocco dispute.

SUB-SAHARAN AFRICA

The states of sub-Saharan Africa are the least heavily armed of any in the developing areas. In this nascent state system arms and war have not yet become a major factor in international relations, though there are some dangerous possibilities for the future.

As with Latin America, geography isolates this part of Africa from the probability of direct aggression by any of the major powers, and no doubt this is one of the reasons for the comparatively small size of the armed forces. But within the group of black African states, military threats or arms competition have not been used for several reasons. Most important is the willingness of the former metropolitan powers, France and Great Britain, to provide guarantees of territorial integrity to the newly independent states. France has concluded bi-lateral and multilateral defense agreements with 11 former colonies. These agreements are a new form of one-way alliance since they do not obligate the African states to aid France, but France pledges military support in case of internal or international threats to the governments in power.¹

¹ France has multi-lateral defense agreements with: Ivory Coast, Niger, Dahomey; bi-lateral agreements with Cameroun, CAR, Chad, Congo (Brza) Gabon, Togo, Malagasy Rep., Mauritania. These with the exception of Niger formed the Union Africaine et Malagache (UAM) initially a mutual defense pact. Regional arms control arrangements in the developing areas, Part V, "Arms control in the Near East," Massachusetts Institute of Technology, Center of International Studies, draft report of July 1964 (later published by The Center of International Studies) p. 36. Hereafter cited as MIT/CIS Regional arms control (with page reference keyed to the appropriate part of the report).

Though Great Britain has not made formal agreements of this type, the MIT study concluded that the former British colonies correctly assume they could obtain aid if a serious situation threatened.¹ The twin problems of internal political instability and the threat of military coups also dissuade the governments from considering military adventures and arms competition.²

However, Somalia's conflict with Ethiopia and Kenya is a portent of possible developments in the region, since the reasons for the dispute might be termed "tribal-boundary" problems. The Somali tribe has a strong sense of ethnic identification and at present there are 500-800,000 Somalis in Ethiopia and 80-100,000 in Kenya. Somalia demands that parts of Ethiopia and Kenya be included in the Somali state.³ With deliberation, Somalia has embarked on a program of armament to enforce these demands against the relatively strong Ethiopian armed forces. The outlines of a major power proxy conflict are already evident: the Soviet Union and Egypt have provided large amounts of military assistance to Somalia, while

¹The assistance given to the Tanganyikan government in January 1964 was important in confirming African expectations of possible help. (MIT/CIS Regional arms control, p. V-8.)

²Another important deterrent to military adventurism in the prenuclear age is the size distribution of the African states. In a regional environment where military power becomes decisive, the many small states obviously would risk subordination to the three large and potentially more powerful, Nigeria, Congo (lpvl) and Ethiopia.

³Numerous other African States contain ethnic groups divided by borders. (MIT/CIS Regional arms control, p.V-11.)

Great Britain is small Kenya's only protection and Ethiopia receives most of its military aid from the United States.¹ However, the example of Somalia and an awareness of the fact that the same border-tribal claims could become heated issues between many states may help avoid arms competition among other African states.

The regional international system of sub-Saharan Africa is polarized into two major camps: the newly independent anti-colonialist states on one side have, in effect, made the remaining colonies and the states governed by white minorities an opponent coalition to be excluded from participation in the pan-African international system.² Is there any possibility that there will be an arms

¹ Somalia rejected a joint United States-Italian-West German offer of military equipment for 5-6,000 men and instead accepted a Soviet offer for a 20,000-man army including an air force. (MIT/CIS Regional arms control, p. V-14.) The United States gave Ethiopia 11.3 million in military assistance in 1963. (MIT/CIS Regional arms control, p. V-11.)

² The MIT study notes the following: though black Africa has total armed forces of 145,910 in comparison to the Republic of South Africa's 25,000, the Republic has a ready reserve of 120,000 to 250,000. Furthermore, the Republic spends 65 million dollars more each year than the rest of sub-Saharan Africa combined, and this represents only 3.24 percent of the GNP. Of perhaps most importance is the advantage the Republic and Portugal have in skilled, professional military manpower. (cf. MIT/CIS Regional arms control, p. III.) A concurring analysis is given by William F. Gutteridge, Military Institutions and Power in the New States, New York, 1965, p. 161-167.

buildup in order to launch a direct attack against white dominated southern Africa? Though possible under some conditions, of course, the actual and potential military superiority of the Union of South Africa and the military resources Portugal could commit make this seem a remote possibility.¹ More likely is a continuation of the pan-African guerrilla warfare already underway. This may avoid direct open combat between independent and white Africa, though if the liberation wars show signs of success in Angola and Mozambique or southern Rhodesia, there might be reprisal raids by Portuguese and/or Republic of South African forces against states permitting or aiding the guerrillas. Such actions could lead to a revival of

Portuguese Forces	Guerrilla Forces	African countries providing aid
Angola: 50,000	7,500 (In two not too successful, confined to the northwest).	Algeria, Egypt (?), Congo (Lpvl)
Mozambique: 20,000	Little activity as of 1964.	Tanganyika provides some help
Portugese Guinea: 6,000	Guerrillas said to control much of the country-side.	Surrounding African states help: Ghana, Senegal, Guinea, also Algeria, Morocco.

Source: MIT/CIS Regional arms control, part V, passim.

efforts to form a joint African liberation force.¹ It is in the power of the individual African governments to decide the future of peaceful relations among themselves and between themselves and white Africa. The willingness on the part of some governments to accept some forms of arms control, would suggest an intention to continue to prevent military competition and force from dominating the relations of the newly independent states. However, many aspects of the African scene seem to invite military adventurism: the uncertain frontiers, absence of national integration, bi-national tribal units, international political interventionism in the context of weak, unstable governments, and tempting disparities in power among the states.

¹ In 1961, the Casablanca powers had established a joint African High Command for this purpose: Nasser promised military aid, but no practical steps were taken. In 1963, the Defense Commission of the newly established Organization of African Unity (OAU) including all the North African and black African states, met in Accra. Ghana "called for the immediate establishment of an African High Command with executive authority over an army, navy and air force to help liberate African colonies." Gutteridge, op.cit., p. 161.

LATIN AMERICA

Three features distinguish Latin America from the other regions: first, no Latin American state is armed for the purpose of deterring a military threat from any major power; second, the United States has been able to insulate the Latin American states from direct military threats by any other major power; and third, the regional military environment has passed the balance of power stage and become a form of collective security system. Since the end of World War I geography, intra-European conflict, and United States military superiority have served to insulate Latin American states from European military threats or alliances with the result that it has been unnecessary and futile for the Latin American states to arm themselves against any state outside the region. And in the post World War II period the United States has become so strong that no Latin American country or coalition could accumulate enough power to oppose or bargain with it in military terms. In effect, the hemisphere's international system is "uni-polar."

But the stability of the system was recently challenged. Missiles and thermonuclear bombs have greatly reduced the constraints of geography on the international diplomacy of the super powers. For three years, 1960-62, it appeared that the Soviet Union might be able to make a tacit offensive alliance with Cuba. Armed with jet

bombers and missiles, Cuba would have posed a direct military threat to the other Latin American states. No doubt some of these governments would have insisted on an immediate expansion of their own military establishments. And, the fear that the United States might be unwilling to risk conflict on their behalf with Cuba's ally might have stimulated them to acquire some kind of independent deterrent. But, among other reasons, the United States risked thermonuclear war in October 1962 in order to make clear its determination to permit no change in the military balance of the hemisphere. A consequence of the Cuban missile crisis was the establishment of an important precedent: the United States demonstrated that it would not permit major powers to donate nuclear weapons and strategic delivery systems to any Latin American state. The crisis not only prevented the "nuclear coupling" of the Soviet Union and Cuba, but demonstrated that the United States possessed the will and power to isolate the Latin American states from direct military threats posed by the proxy of a major power.

In the contemporary relations of the Latin American states the role of armaments and wars is limited. Balance of power politics, grand coalitions, arms competitions and wars occurred in the nineteenth century.¹ At the turn of

¹ Six wars were fought in the first 85 years of independence.

the century, in accord with widespread European interest in peaceful settlement of international disputes and the promotion of the Pan-American idea, many Latin American countries negotiated settlements to long standing territorial disputes.¹ During the inter-war period the Latin American states drew closer together in the face of the United States intervention in the Caribbean and the numerous inter-American conferences gradually elaborated the "inter-American system", a complex of treaties, institutions and informal rules designed to outlaw war among the Latin American states.² After World War II, the Organization of American States was established to provide a firm institutional and legal basis for collective security and to ensure and regulate the participation of the United States in maintaining peace. Successful in ending or preventing some seven disputes since 1947, the OAS has, however, not been tested in any conflict involving any of the larger Latin American states. But it seems very probable that the participation of the United States in the collective security system is an important reason why most governments hesitate to initiate open military

¹ The strongest states, Argentina and Chile, even concluded a naval disarmament treaty to halt their growing and expensive arms competition.

² Two brief and one protracted bloody wars (among small states) demonstrated the limitations and also the resources of the inter-American system; all the larger states in the hemisphere joined together and attempted to mediate the disputes and to encourage conciliation.

aggression. United States military superiority and resources would appear to make the sanctions of the regional collective security system seem a near certainty rather than a remote possibility.

Available evidence on the military forces in Latin America suggests that there is only one case of anything resembling serious military competition between two states, Peru and Ecuador. For the rest, the size and status of the armed forces, their deployment patterns,¹ and the apparent absence of military espionage, all support the view that Latin American governments do not, despite all the fervent independence day nationalist orators, fear or expect aggression.

What inter-state military rivalry there is in Latin America seems more a matter of prestige than a serious attempt to match a potential opponent.² And, balance-of-power politics with military forces is an important feature

¹ The existing armed forces in so-called rival countries hardly seem to be affected by each other -- as they would be if there were any expectation of combat. For example, Venezuela has a moderately large and well-equipped air force, yet Colombia and Brazil have given no attention to air defense. Brazil has competent armored units, Argentina has made few efforts to develop an armored capability. Deployment is only rarely along frontiers or in other readiness positions; usually the largest military concentrations are near large cities, presidential palaces and the like.

² A good example is the aircraft carrier acquired by Brazil. Soon after, Argentina also bought one. But the Brazilian ship had no aircraft for several years and rarely left port. It remained a floating tennis court because the Brazilian air force did not want to permit the development of a naval air capacity. This struggle was partially resolved when the Navy was able to smuggle in some airplanes.

of internal rather than regional politics. Since World War II, all the most violent engagements and dangerous confrontations involving military force have occurred between various factions of the national armed forces.¹ To ensure at least parity with other services internally there is competition both for budget allocations and for weapons with high fire power.² The large air forces and navies competing in all the larger Latin American countries are both a cause and result of this internal military competition. Rather than regional or major-power military threats, the size and armament of the armed forces in Latin America is determined primarily by certain aspects of national politics such as the needs of internal security and the political role and preferences of the military elites.

¹ For example: 1961, Ecuador -- Air Force vs. Army; 1962, Argentina -- Air Force, Cavalry Engineers vs. Navy, Infantry; 1963, Argentina -- Air Force, Cavalry Engineers vs. Navy (Air), Infantry. In Argentina, it seems the Navy deliberately built up its marine corps, increasing its size from 2,000 in 1955 to 8,500 in 1962 for the specific purpose of "containing" the army. After the navy's defeat in 1962, the marine corps was reduced to its initial strength, and the navy's control over Buenos Aires police was ended. (MIT/CIS Regional arms control, p. II 4-7.)

B. Modifications of the "classical" theory

We can now take up the question of how well the classical theory of arms and state relations applies to states in these six regions. On the whole, the extent of similarity is rather startling, though there are significant deviations. The most important point of agreement emerging from the analysis is that in all the regions, the security of the individual states depends not on accepted norms of conduct but on some form of military power. Balance of power politics, and arms competition then seem to be either possibilities or actualities in all the regions. But, there are differences in the actual importance of arms in regional international relations. Latin America has established a more or less effective collective security system; the North African and sub-Saharan governments are attempting to prevent the eruption of violent conflicts and military competition among themselves. In the three remaining regions, the Near East, South Asia, and South-East Asia, military power is much more important because some states must defend themselves against major power threats and there are simultaneous intra-regional hostilities.

Nevertheless, the preceeding regional analyses suggest significant departures from the simpler model of state competition and inevitable mistrust. First, we note the comparatively rare occurrences of arms "races," that is, a military competition for supremacy which would permit the state in the lead to initiate war. Only the Arab-Israeli situation seems to fit this description and even in that

case there has not been a constant spiraling competition. The Republic of South Africa since 1959 has been steadily improving its military force in an obvious defensive arms build-up, but it has not been matched by the black African states. Rather than a series of moves that seem to indicate some sense of imminent violence, the more common situation between or among hostile states, is the effort to maintain more or less stable balance for deterrence - as for example, the military relations of Pakistan and India until 1962.

Assumptions concerning the inevitability of competitiveness and suspicion among states do not explain why military competition or buildups among several states within a region does not affect the policies of the rest, though their locations make them potentially vulnerable to attack. This separation of military arenas, as it was termed, occurred most notably in the Near East and South-East Asia. In South Asia, however, Pakistan's movement toward China in response to India's arms buildup against China was more in keeping with expected patterns. Related to this separation of conflicts, we found that neither conflict nor the threat of violence has inevitably led to a two-bloc polarization of state relations in the six regions.. Perhaps the most important reason for this is the participation of major powers.

In fact, the most important divergence from the earlier model of state relations and arms competition is due to the role of the major powers in regional politics. Major powers

participate in regional disputes in three principal ways: by making threats; offering guarantees and alliances; and, donation or sale of arms. The major powers intervene for their own reasons which are usually concerned with competitive relationships in the primary military area, rather than the merits, inducements and so forth of regional states. In other words, in competing with one another, regional powers are in several ways dependent on the actions of states external to their system and over which they can exert relatively little, if any, coercive persuasive influence. This controlling influence of states outside the sanctions or inducements of the regional balance of power political system is the feature which most sharply distinguishes arms competition in the developing areas from the historical or contemporary pattern of major power relationships.

III. ARMS CONTROL IN THE DEVELOPING COUNTRIES

The analysis of arms and international politics in the developing areas inevitably suggests and offers insights pertinent to the general problem of arms reduction and control among these same countries. This part of the paper will first discuss the differences between arms control among the developing countries and the major powers, then speculate about the implications for the developing countries of transition to nuclear armament and, finally, survey several types of relevant arms control measures.

A. SPECIAL CHARACTERISTICS OF ARMS CONTROL IN THE DEVELOPING AREA

Generally speaking, much of the reluctance to negotiate arms control agreements stems from the mutual suspicion of all states. And the more urgent the need for arms control, the more likely greater mistrust. Above all, governments fear that either because of cheating or miscalculations an arms control or disarmament measure might lead to a military advantage for an opponent, resulting in serious damage to their nation's security. In the major power military competition between the western and Communist states the risks associated with significant reductions of strategic-war armaments are extremely high precisely because successful cheating could

give a nuclear power an enormous military advantage which could be used to threaten immediate massive destruction. However, arms control among the developing states entails less risk than among the major powers for two reasons: their current levels of military technology and the structure of the international system.

Up to mid-1966, all the developing states were armed only with conventional weapons; none had yet crossed the nuclear threshold. This meant that in any regional war, it would be nearly impossible for an aggressor to totally and irreversibly destroy a country before it could mobilize for defense, or before it could obtain assistance from other regional or major powers.

If a regional power were to face a serious military threat because an arms control agreement had been violated, there is a high probability that one or more major powers, if requested, would intervene in one way or another to aid the threatened state. Unless the regional aggressor also had a major power ally, the military superiority of the major powers probably would in itself be sufficient to deter continuation of the regional conflict. This possibility of overwhelming, external intervention to safeguard the security of developing states therefore provides a "back-up" to

regional security and arms limiting arrangements among the developing countries, which considerably reduces the risks involved.¹

Several other factors derived from the comparative simplicity of the military environment also make arms reductions in the developing countries a far easier political problem than among the major powers. First, there is little if any important military research and development work being done in the six regions, with the possible exceptions of India, Israel and Egypt. This already removes several important obstacles to arms control agreements and verification procedures: the fear that an opponent will use such agreements in order to race forward and come up with a decisive new weapon, and the concern that inspection procedures will be used to uncover vital military secrets.

Most importantly, in the "pre-technological arms race" parts of the world, the most vexing problem of arms control among the major powers is absent: the maintenance of agreed military force levels and ratios in the face of rapidly

¹How probable such intervention is would depend obviously on a host of unforeseeable factors. The point is made to contrast the situation in the U.S.-SU arms competition where there could be no recourse to help from any other countries (all being weaker) if there were successful cheating.

improving secret military technology.¹ Military secrecy in the developing countries thus far includes information about numbers and deployment of weapons. But it does not include performance data of unknown new weapons because most of the developing countries lack arms production facilities and must depend on external supplies of arms.² This makes it difficult for one state in a region to undertake a secret military build up in violation of an agreement since a major power exporting heavy armaments would have to be an accomplice. And if that occurred, there is some chance that the intelligence services of a rival major power could warn the threatened countries.

Crossing the Nuclear Threshold-Consequences and Implications

Several important changes occur as arms competition between states passes beyond the conventional weapons threshold to nuclear weapons and reliable, "instant action" delivery systems (missiles). For example, a nuclear

¹For example, assume that the United States and the Soviet Union agree on permitted strategic forces of 1,000 missiles each. If either or both improve the accuracy, reliability or warhead yield of their missiles, there would need to be some readjustment of the forces allotted to prevent possible changes in the military balance.

²Specific estimates of munitions manufacturing capability in the developing areas can be found in Chart C.

attack could mean a sudden and devastating defeat for any country whose economy centered on a few critical areas. Most of the developing countries might be termed such "single" metropolis countries because their present economies and chances for further development depend on one urban area and perhaps two or three other critical centers, which combine to constitute the indispensable core of the post-agricultural economy. A regional nuclear attack could therefore deal a blow signaling the end of the state's economic viability and its annexation by the attacker.

Another change occurring after the acquisition of nuclear weapons may be the role which can be played under certain conditions by outside powers or organizations. For example, would any major power be willing to retaliate against the nuclear aggressor in a regional war among the developing states after the fait accompli of a devastating attack? This cannot be answered by abstract consideration, except to say that the time-contraction accompanying the change to nuclear weapons will make it far more difficult for any major power to assist states threatened in purely regional disputes. And any assistance offered after nuclear attack will seem too late, even if it succeeds in preventing the destroyed country's total defeat. After the transition

to nuclear weapons, therefore, major powers and international organizations can play much less of a stabilizing role in such regional military disputes.

Deprived of the "back-stopping" protection of the major powers, the developing countries would be likely to pursue a policy of military autarchy, preferring a national nuclear capability to reliance on other states. In such a nuclear environment, the "power differential" among the many developing states has an effect opposite to that in the conventional military environment--it provides an incentive for military competition because with very few nuclear weapons even a small state might effectively deter far more powerful countries. For example, armed with nuclear weapons, Pakistan by explicitly pursuing a counter-city strategy could deter a nuclear-armed India, though it would have enormous difficulty matching India in conventional arms competition.

The "separation of military arenas," which has been described as lessening military competition in the developing areas, might also end if one of two states within a region obtained nuclear weapons. These weapons would probably seem a threat to all states within range--even if intended only

for use in a specific sub-regional dispute. As mentioned earlier, Turkey might not be concerned by new bombers or ships Egypt procures for use against Israel, but the Ankara government would probably consider Egypt's possession of nuclear bombs a potential menace requiring it to obtain some also.

Inevitable Instability. The cumulative instabilities of the nuclear military environment derive not only from this accelerating pressure to obtain nuclear weapons, but also from the two stages of what might be termed "structural instability" likely to accompany the beginning of nearly all nuclear arms races. The first stage occurs in the period of initial efforts to acquire a nuclear arsenal. Unless opponent countries are developing or importing the new military technology at precisely the same rate, there may be a temptation for the lagging country to initiate a preventive war to forestall drastic changes in the regional balance. Conversely, the country first armed with nuclear weapons may initiate war¹ or attempt to impose surrender while it holds the lead.

¹Huntington noted that in technological arms competition the dangers of war are great when one side fears the other is about to make a decisive breakthrough, or when the country in the lead moves to attack before the competitor can catch up. Huntington, S.P., op. cit.

The second stage is reached when two states have acquired what can be considered, at least initially, an adequate nuclear force. It is very likely that at first these forces will be highly vulnerable to surprise attack because of small numbers, primitive equipment and so forth. In these conditions the structural instabilities presumably associated with the 1958-62 period in Soviet-United States arms competition may appear since the military advantage will be overwhelmingly with the state attacking first. As a result, all the dangers of preemptive attack and unintended war due to reciprocal fears of surprise attack would make the regional balance precarious.¹

If regional states survived these two initial stages, there might be progression to a situation of stable mutual deterrence when more or less invulnerable nuclear forces offer a military advantage to the country attacking second, by making surprise disarming attacks impossible. Furthermore, under such conditions, if the "defensive" rather than the aggressive country, Israel rather than Egypt for example, obtained a significant lead in the nuclear competition, it might be able to use that military advantage to prevent the

¹ See for example some discussions of the pre-secure second strike military environment: Albert Wohlstetter, "The Delicate Balance of Terror," Foreign Affairs, January 1959, pp. 212-234.

opponent from making any more additions to its arsenal. In this way a stable military balance might be enforced as an alternative to continued importation or development of more advanced weapons. Quite clearly, however, the transition from conventional to nuclear weapons in any of the six regions would make arms control solutions more complex, more necessary, and far more difficult of achievement.

B. SURVEY OF RELEVANT ARMS CONTROL MEASURES

Before elaborating the kinds of arms control measures relevant to the developing countries, we note three reasons governments might be interested in exploring this matter. First, such voluntarily agreed upon arms limitations constitute symbolic actions which under most circumstances can be presumed to reinforce the probability of peaceful state relations. Secondly, there is an economic rationale for arms control, since either a reduction in current arms expenditures or the prevention of steadily or sharply increased military costs could have beneficial economic consequences for many countries.

The officially acknowledged total arms budgets of the 79 developing countries is more or less \$6.3 billion. (See Appendix I) And if hidden costs, indirect costs and the sum of foreign military assistance through grants,

equipment donations and cut-rate sales prices were all included, the total arms bill might be closer to \$10 or \$11 billion, not including the budgets of the national police forces. Further, the developing countries often use an important part of their scarce foreign exchange resources to purchase military equipment and supplies only available abroad. Thus, military requirements could conceivably compete directly with the most urgent needs of economic development programs. Janowitz notes that in some cases, " ... partly because of heavy expenditures for the military, the rate of economic development has not been impressive..."¹ Finally, in much of Latin America, the Near East, and North Africa reliable information shows that the economic rewards of membership in the officer class are always more than ample, and are kept that way by pressure from the military.²

It should of course be mentioned that the armed forces in many countries make some contribution to economic

¹M. Janowitz, The Military in the Political Development of New States, Chicago, 1964, p. 80.

²For example, the MIT study notes, "The army is well on its way to becoming Algeria's privileged class.... Pay is high... and an army career offers security in a nation where unemployment is exceedingly high." Center for International Studies (CIS) Regional Arms Control Arrangements for the Developing Areas. (C/64-25), 1964, p. IV-18.

development. The training of technical and administrative personnel, literacy instruction for recruits and so forth are examples of useful activities, though these contributions are often exaggerated. Note that the 230,000-man Pakistani armed forces were turning out only 250 technicians annually during the late 1950's.¹ There is also some direct contribution to economic growth such as road building and maintenance of communications lines. In Latin America, the Near East, and North Africa, however, the armed forces do relatively little work of this sort.² It is clearly impossible to say how much of the current expenditures for the armed forces is "wasteful" and harms the economy, but current expenditures in some countries, especially the Near East and Latin America, might be considerably reduced. How much arms limitations might save would depend on the particular measure and will vary from country to country. More important than immediate savings from the reduction of existing forces are those which would result from the avoidance of increased military expenditures in the future.

¹ Janowitz, op. cit. passim.

² CIS, op. cit. passim.

A third motivation for arms control agreements is that these might provide governments with a convenient and effective political instrument for use in internal politics against either the political or budgetary ambitions of the military establishments. National leaders could argue, for example, that military expansion could not be undertaken because of "international commitments" and might be able to get implicit or explicit political support from the regional and major powers participating in the arms control arrangements.

Assuming the amount of arms each state "should" possess is that quantity sufficient to maintain internal order and to provide for defense against genuine military threats, what kinds of arms control might be considered by governments in the developing regions? We will consider arms control measures of three types: qualitative, quantitative, and confidence building.

Qualitative Arms Control

Qualitative arms control refers to any measure that proscribes certain kinds of weapons. This is clearly the most important type of arms control, since it is intended to help prevent arms races and wars in the regions by

limiting the proliferation of nuclear and CBR¹ weapons, and even many of the more advanced conventional armaments.

The Problem of Nuclear Weapons. Developing countries might acquire nuclear weapons from one or more of the nuclear powers, or through national development and production. The problem of major power nuclear sharing will be discussed later. For the moment we shall consider what possibilities for independent nuclear weapons production exist in the six regions.

Several estimates contend that few of the 79 countries here considered could independently produce nuclear weapons. In 1960 the National Planning Association report concluded that India could build a nuclear weapon in the "near future" and included Argentina, Brazil, and Mexico among the group which might have the capability within five years.² The MIT study concluded that 66 of the 79 developing countries had no potential nuclear production capability and that only two seemed to be moving toward a weapons program. (See Chart B.) Another study included only India and Israel

¹ CBR designates chemical, biological and radiological weapons.

² National Planning Association. The Nth Country Problem and Arms Control. Washington, D. C. 1960.

CHART B

NUCLEAR POTENTIAL IN THE DEVELOPING AREAS BY REGION

Region	number of countries	no capability	in possession of nuclear reactors	creating or having option on nuclear weapons program	engaged in nuclear weapon program
Sub-Saharan ¹					
Africa	29	27	Congo (lpvl) So. Africa		
North Africa	4	4			
Near East	12	7 (Cyprus)	Turkey Egypt Iran (Cyprus)	Israel	
South ²					
Asia	5	3	Pakistan	India	
South East Asia	7	6	Indonesia Brazil Argentina Venezuela		
Latin America	22	19			
TOTALS	79	66	11	2	0

Source: Chart by the author from data given in - H. Roberts Coward, Military Technology in Developing Countries, Center for International Studies, Massachusetts Institute of Technology, Cambridge: Massachusetts, April 15, 1964

¹Excluding Malawi, Sambia, Southern Rhodesia, Gambia, for lack of data.

²Excluding North Vietnam for lack of data.

in a list of 14 potential A-bomb producers.¹ Earlier estimates had been exaggerated, the Beaton and Maddox analysis contended, because primary attention was given to the economic costs of a weapons program rather than the numerous problems which arise in first obtaining and then effectively using the requisite technological infrastructure of skilled personnel and complex equipment.² If cost is the main index of measurement, the over-estimation of nuclear weapons producing capability is understandable since a token nuclear capability (one bomb a year) would only require an initial investment of \$75 to \$90 million and entails annual operating costs of \$24 to \$30 million. A more extensive program yielding a small stockpile of atomic bombs would require an initial investment of about \$1.5 billion and an annual expenditure of \$45 to \$60 million.³ Note that 17 of the 79 countries have annual military budgets exceeding \$100 million.⁴

¹Beaton, L. and Maddox, J., The Spread of Nuclear Weapons, London, 1962.

²Ibid., the authors consider the National Planning Association's conclusions that 27 countries could become nuclear powers an example of exaggeration.

³Beaton and Maddox, op. cit., p. 22.

⁴See regional charts in Appendix I.

More recent thinking criticizes the estimates of Beaton and Maddox for being a bit too conservative. Donald Brennan of the Hudson Institute comments that "between 1965 and 1970, any industrial country will be able to get enough plutonium to have atomic bombs and be able to make them if desired."¹ Nevertheless, so far as the developing countries are concerned the technological obstacles will remain formidable, and for the next decade it is probably that no more than five to six will be able to independently produce atomic bombs.² In mid-1965 only India, Egypt, and Israel appeared to have serious intentions of developing nuclear weapons or at least providing for an option to do so should an opponent use nuclear threats.³

The most logical way developing countries could keep the nuclear shadow from their regions would be through

¹D. Brennan, July 15, 1965, Interview.

²On the evidence of the three studies cited, these are: India, Egypt, Israel, Argentina, Brazil, and Mexico. While 11 of the 79 countries possess some sort of nuclear reactor (and the number will increase), this by itself is far from sufficient to ensure that an atomic weapon could be manufactured. These 11 countries are, however, "ahead" of those without reactors, because the reactors serve not only as potential sources of fissionable material, but also as a means of acquiring indispensable technical competence and experience.

³See Chart B. A well informed U.S. Senator stated in June 1965 that Israel and India could both build nuclear weapons "in months" if their governments decided to do so. New York Times, June 25, 1965.

self-denying agreements which prohibit any country from developing or receiving nuclear armaments. Tentative steps towards such agreements have been made in three regions. The governments of North Africa and Sub-Saharan Africa initiated and supported a 1961 United Nations resolution designating Africa a nuclear free zone. Though an important part of the political support for that resolution derived from a desire to prevent France from using the Sahara for its nuclear tests and from hostility toward United States' strategic air bases, the governments nevertheless pledged not to receive or manufacture nuclear weapons.¹ Following the Cuban missile crisis in early 1963, five Latin American governments declared that they were prepared to sign a Latin American multilateral agreement by which the countries would commit themselves not to manufacture, receive, store or test nuclear weapons or devices to launch such weapons.² Subsequently, a United Nations resolution was passed endorsing the Declaration and offering the assistance of the United Nations, if

¹United Nations General Assembly Resolution 1952 (XVI), November 28, 1961.

²The five states making the declaration were Brazil, Bolivia, Chile, Ecuador, and Mexico.

requested, in the achievement of a denuclearized Latin America.¹

While such resolutions and statements are important, further agreements have not been concluded. Countries in these three regions would have little to lose and much to gain by entering agreements which prohibited nuclear weapons and made provisions for some minimal inspection and verification procedures.

In Southeast Asia, the confrontation of the major powers and the increasing military involvement of the United States make it unlikely that any kind of nuclear ban could be arranged. In South Asia, Chinese nuclear threats might make it essential for India to have some form of nuclear guarantee or counter-capability.² A major power guarantee

¹United Nations General Assembly Resolution 1911 (XVIII) Nov. 27. 1963.

²It cannot be stated definitely that China will resort to the use of nuclear blackmail as soon as it has accumulated a "respectable" stockpile of atomic bombs. In fact, the Chinese government has officially stated that its aims can best be achieved through wars of national liberation and therefore, "A socialist country absolutely must not be the first to use nuclear weapons nor should it in any circumstances play with them or engage in nuclear blackmail and nuclear gambling." Editorial in Jenmin Jih Pao (the CCP official newspaper) and Hung Chi (the ideological Journal of the CCP central committee) Nov. 19, 1963 as published in BBC Monitoring Service, Summary of World Broadcasts: Part II, The Far East, Second Series, no. 1409 (Nov. 20, 1963) pp. C9-C11. Of course, "objective conditions" could alter the CCP leaders' policy.

of South Asia against China would be the best arms control step. However, if India insists on having its own nuclear weapons, the critical problem will be to prevent Pakistan from seeking the same. India might be able to do this either by reaching a political accommodation with Pakistan and/or by offering a reliable guarantee that India would not use nuclear weapons against Pakistan under any circumstances. Another means of accomplishing nuclear arms limitation in South Asia might be a British offer to donate several ship-based missiles and nuclear weapons on condition that India agree to a three-lock system of command and control requiring agreement between an Indian, British and Pakistani officer before they could be fired. This arrangement would give Pakistan the capacity to prevent the use of these weapons against it. Though bizarre, this type of agreement could solve two problems: the British (or United States) veto power would reduce the risks of irresponsible use of nuclear weapons; and the Pakistani veto might prevent a 'ricochet' attempt by Pakistan to obtain or produce nuclear weapons of its own.

Rival countries such as Egypt-Israel and India-Pakistan have an opportunity to avoid nuclear arms competition because it is impossible to secretly develop

deliverable nuclear weapons. To have confidence in its nuclear weapons or be able to use them for political purposes, a government must demonstrate its mastery of the new technology by successfully testing a nuclear device-- and this test is impossible to conceal. Consequently Egypt and Israel, for example, rather than driving each other into the acquisition of a nuclear capability by the fear of being the second to obtain the bomb, could tacitly agree not to go beyond the development of the capability for producing nuclear weapons. That is, both countries would forego the production of complete atomic bombs unless and until one country's test explosion announced that the understanding had been broken. This analysis, of course, could apply to other regions.

-Chemical, Biological, and Radiological Weapons-

The common preoccupation with nuclear weapons in the public discourse may dim awareness of the considerable danger and destructive power of chemical, biological and radiological weapons, which after all are also 'mass destruction' weapons. Chemical weapons might be especially tempting to ambitious leaders. They are cheap, fast-acting, easily delivered, and available in a wide variety of forms.

Biological weapons are also quite cheap, easy to mass produce and very lethal,¹ though it is less possible that these would be stockpiled in countries where chemical safeguards and counter-measures are scarce or unavailable.

Unlike nuclear weapons, these deadly CBR weapons can be produced and tested secretly--no mushroom cloud announces such plans. Even states with rudimentary chemical and pharmaceutical production facilities could manufacture some CB weapons because of the relative simplicity of the technological processes. A rough estimate suggests that 30 of the developing countries are already potential producers.² Many of the same comments apply to radiological weapons, though only 11 countries so far possess the reactors which are essential to their production.

¹Testimony to the deadliness of biological weapons is this statement by a high ranking United States officer. "Ten carrier-planes or missiles each carrying five tons of dry biological agents, could fly at high altitudes...and get at least 30% casualties in the United States." United States Senate, Committee on Foreign Relations, CBR Warfare and its Disarmament Aspects, Washington, 1960 p. 37.

²Ibid.

It is not possible to estimate whether CBR weapons are being stockpiled by any of the developing countries at present. There have been intimations that Egypt and Israel have certain types for mutual deterrence. Perhaps the same applies to India and Pakistan. While this pattern of deterrent stockpiling could be repeated if other countries became intensely hostile, some form of agreement with even minimal inspection could serve to prevent this type of defensive arming. In Latin America and Africa there seem to be few international obstacles to such an agreement.¹ In the other areas regional disputes pose problems to the conclusion of such agreements. Yet at the same time they offer incentives--especially if the disputing countries had not intended to rely on these weapons, but feared their regional opponents might.

-Advanced Strategic Delivery Systems-

Another category of weapons which the developing countries should attempt to ban are missiles and jet

¹Though the Republic of South Africa might not be willing to renounce the right to use chemical weapons which might be very "useful" in mass repression or in case of a combined African attack.

bombers. We have already discussed why these delivery systems, in combination with mass destruction weapons, make the military environment highly tense and unstable. Even with only conventional bombs, these weapons cause instability because they appear very threatening to neighboring states. The development by Egypt and Israel of surface-to-surface missiles is an unfortunate precedent which should not be repeated. Possibly in Africa and Latin America and even among the remaining Near Eastern countries a 'missile-ban' could be worked out.

-Limitations on National
Military Production Facilities-

In 1963 only 14 of the 79 developing countries had military production facilities capable of assembling and repairing weapons larger than small arms. Thirty-seven countries had no military production capacity of any type. An informed estimate calculates that an additional 19 countries (for a total of 33) could acquire the capability to assemble and repair large weapons and that only 10 have no potential military productions capacity whatever. (See Chart C)

-71a-

CHART C

MUNITIONS MANUFACTURING: ACTUAL CAPACITY 1964

Region	no. of cntrs.	No capa- city	Manufacture and repair of simple small arms and ammunition	Manufacture of amll arms, assembly and repair of large weapons	Assembly and/or manufacture of heavy weapons and aircraft
Sub- Saharan Africa	29	22	6 Nigeria, Sudan, Ghana, Somalia, Liberia, Ethiopia		1 South Africa
North Africa	4	2	2 Algeria, Morocco		
Near East	12	4	4 Jordan, Syria Iraw, Iran	2 Lebanon, Israel	2 Egypt, Turkey
South Asia	5	2	1 Afghanistan	1 Pakistan	1 India
South East Asia	7	2	4 Malaysia, Indo- nesia, Burma, Thailand	1 South Viet- nam	
Latin America	22	5	11 Venez, Uruguay, 3 Paraguay, Dom. Rep. Guat., Nic., Costa Rica, Pan- ama, Peru Ecuador, Bolivia	Cuba, Colom- bia, Mexico	3 Brazil, Chile Argentina
Total	79	37	28	7	7

MUNITIONS MANUFACTURING: POTENTIAL CAPACITY

Sub- Saharan Africa	29	7	Chad, 20 Congo (Lpvl & Gabon, Brz) Malagasy, Mali Ruanda, U.Volta, Cameroun Burundi, Ivry Cst, Guinea, Niger, Senegal, Sra Leone C.A.R., Dah., Togo, Uganda Maurit- ania Kenya, Tanzania Nigeria, Sudan, Ghana, Somalia, Liberia	1 Ethiopia	1 South Africa
North Africa	4	1	Libya	3 Tunisia, Alg, Mor.	
Near East	12	2	Cyprus, 3 Yemen, Saudi Kuwait Arab, Jordan	4 Syria, Iraq, Iran, Lebanon	3 Israel, Egypt Turkey
South Asia	5		2 Nepal, Afghan.	2 Pak, Ceylon Iran	1 India
South E. Asia	7		3 Camb, Laos, Malay	3 Indon, Burma, S. Vietnam	1 Thailand
Latin America	22	5	Haiti, Jam, Trin/T Hond., Paraguay	1 Cuba, Colon, El Sal. Dom. R. Guat, Nic. Costa Venez, Urag. Rica, Panama, Peru, Ecuador, Bol.	6 Braz, Chile, Argen, Mex., Venez, Urag.
Total	79	10	36	21	12

Source: Chart by the author from information in - H Roberts Coward, Military Technology in Developing Countries. CIS. Mass. Inst. of Tech. (C/64-5), 1964.

This outline of military manufacturing capacity and potential demonstrates the dependence of the developing countries on the industrial states for heavy and modern military equipment (aircraft, tanks, ships). In two regions, Africa and Latin America, the sharp contrast between present and potential military production facilities suggests that it might be useful to consider an agreement whereby states would agree not to establish any new military production facilities. In Africa an agreement against setting up small arms factories could be useful, and in Latin America an agreement barring the construction of heavy weapons assembly or production plants might keep the number of states possessing this capacity from increasing from the current six to the potential seventeen.

Quantitative Arms Limitations

Quantitative arms control agreements are those which set specific numerical upper limits on military manpower, budgets, or categories of weapons. Besides the well-known Naval Disarmament Agreements of 1922 and 1928, another interesting precedent for such measures exists in the Convention on the Limitation of Armaments adopted by the Central American states in 1923. This treaty

fixed specific permissible military strengths for five countries on the basis of "population, area, length of frontier," banned possession of more than 10 military aircraft and restricted the navies to coastal patrol craft.

The most sensible starting point for quantitative control would limit heavy military equipment patently suited for external war rather than internal security, such as bomber aircraft, heavy naval vessels, submarines, heavy tanks and artillery. Since the present armed forces in North and Sub-Saharan Africa are comparatively small and technologically unsophisticated, agreements of this type might be useful, as a means of preventing future increases in military forces. There are, however, many difficulties with quantitative agreements. Even the attempt to negotiate an agreed level of forces among states of different size and power can initiate mutual distrust since most governments would try to obtain as large an allocation of forces as possible. Bringing disparities in military strength into the open by writing down different permitted force levels for various states could also result in larger rather than limited

armed forces.¹ Further, it is often harder to assure compliance with agreements limiting numbers of weapons than with measures banning specific types of advanced military technology. This is because the numbers of troops, weapons and other military data are quite easy to fake and conceal. And secondly, the less technologically complex and exotic the weapon, the easier to secretly build up prohibited stocks. Until some of the developing countries take initiatives toward the comparatively simple qualitative arms control measures already discussed, there seems little likelihood of progress on these more subtle quantitative forms of military limitation.

-Confidence Building Measures-

Confidence building measures are any steps, unilaterally or jointly taken, which do not involve quantitative or qualitative limitations on the armed forces. The two main purposes of such measures are to prevent hostilities and military competition from

¹This in fact occurred in the 1920s when Argentina, Brazil and Chile attempted to negotiate a naval arms pact. The final result of the bargaining was a net increase in the naval strength of Argentina and Brazil. G. Hosano, International Disarmament, 1928.

beginning, and to reduce existing international tensions and arms competition. A list of such measures could be as long as imagination and statemanship would make it. Some examples are voluntary disclosures of military information to other governments, and frontier demilitarization.¹

A program of voluntary disclosure of military information would be most useful in the developing areas because secrecy frequently raises unjustified fears and can lead to unintended military competition. Military secrecy can also provide unfortunate opportunities for commercial suppliers of armaments to stir up suspicions and start arms races and perhaps

¹Voluntary disclosure of military information has a precedent, The League of Nations Year Book of Armaments, and annual compilation of government supplied data on national arms inventories. In Latin America, frontier demilitarization agreements during the 19th and 20th centuries, appear to have contributed to the marked reduction in balance of power politics in that region. Some of these agreements are listed below.

- 1831, 1840: Columbia and Peru concluded an agreement limiting the number of military personnel permitted in border provinces.
- 1881: Argentina and Chile agreed to remove fortifications in the Magellan Straits.
- 1921: Haiti and the Dominican Republic agreed not to fortify their frontier. Peru and Chile dismantled border fortifications. CIS. op.cit. Annex II-C p.2.

1 wars. Efforts could be made to establish a system of voluntary reporting whereby governments would submit information on their military forces to be used as a reference by the governments of neighboring countries. This could be done on a region by region basis through some of the existing regional organizations such as the OAS or OAU, or better still, under United Nations auspices. Frontier demilitarization agreements and bilateral military inspection arrangements are likely to be successful when undertaken by states seeking to avoid or reduce military competition due to reciprocal insecurity (i.e. two states arming 'defensively'). Further, an interesting test for some of the assumptions underlying the numerous proposals in the arms control literature for measures to reduce Soviet-American hostilities might be the attempt by some of the developing countries facing apparently aggressive states, Israel vs. Egypt, Ethiopia vs. Somalia, Malaysia vs. Indonesia, to see what results might be obtained by unilateral arms reduction initiatives.

¹ Though the 'merchants of death' have little influence in the Soviet-American arms race, the opportunities in the developing areas must appear most tempting.

The Major Powers and Arms Control in the Developing Areas

The preceding analysis clearly leads to the conclusion that the policies of the major powers could have many consequences for arms control in the developing areas. But is there any agreement between the Communist and non-Communist governments on some joint steps that might be taken to promote arms control in the developing countries? The answer must be yes and no. While the United States, Great Britain and the Soviet Union seem to have a recognized and agreed common interest in limiting the further spread of nuclear weapons, and perhaps advanced missiles, the chances of cooperation to regulate conventional weapons appear slight.

-Control of Nuclear Proliferation-

United States policy has always favored restricting the number of nuclear powers. This was clearly demonstrated in the NATO alliance: only Great Britain was given assistance in the development of nuclear weapons.¹

¹ Note that even after France had developed its own nuclear weapons the United States through the Munitions Control Board makes strenuous efforts to be certain that United States manufacturers don't sell France electronic components critical to the development of further weapons and a delivery capability. New York Times, July 2, 1965.

At times, however, the United States has not supported Afro-Asian resolutions and proposals in the United Nations for nuclear free zones because these were in part intended to make it embarrassing for the United States to maintain once vital strategic air bases in Africa, the Near East and South Asia. Since 1963 the strategic importance of such overseas bases has steadily declined, and today the United States can endorse the nuclear free zone proposals for every region but Southeast Asia.

The Soviet Union has pressed for nuclear free zones partly as a means of forcing the United States from its foreign bases and has in fact made explicit threats of nuclear attack against countries granting base rights. In 1964, however, an official Soviet statement made it appear that 'denuclearization' might also be broadened to mean agreements prohibiting the nuclear powers from granting any form of assistance to any non-nuclear powers in the development of weapons: "...if the obstacles can be overcome, we are ready to begin immediately to draft a treaty on the non-dessemination

of nuclear weapons."¹ In actual practice, both the Soviet Union and the United States have pursued a rigorous non-proliferation policy from 1949 to 1962, and, after the Cuban missile crisis, from 1962 to the present. For both countries, the major motivations for restricting the number of countries with nuclear weapons have been and remain the possibility that these weapons could be used against them, and the fear of possible involvement in a regional nuclear war. Because the number of states which might provide nuclear weapons or help others develop them has increased to five, there is a growing incentive for some kind of

¹New York Herald Tribune, June 10, 1964, quoted in CIS, op.cit. p. IX-26. The MIT study also quotes, (p.IX-24) an unofficial endorsement of nuclear free zones: "Implementation of such nuclear free zone proposals would be in line with other vitally important measures designed to reduce international tension and remove the danger of nuclear war..all would stand to gain." A. Samartsev, "Nuclear-Free Zones are a Vital Necessity," International Affairs, (Moscow) May 1964, p. 45.

explicit anti-proliferation agreement.

There are three principal actions the United States and the Soviet Union can take to impede the spread of nuclear weapons. First, they can agree not to assist any country to acquire them, and invite Great Britain, France and China to ratify the agreement. If there were any difficulty in obtaining Chinese or French adherence, and if the Soviet and American determination to prevent the spread of weapons were strong enough, coercion of some type could be used to enforce a ban on proliferation. Secondly, both countries can use their diplomatic resources to ensure that the International Atomic Energy Agency inspection procedures are adhered to by all the countries receiving funds and technical assistance for the construction of research or power reactors.

Thirdly, the United States or the Soviet Union might agree to extend tacit or explicit guarantees to any state threatened by nuclear blackmail, if in return the state pledged not to develop its own weapons. One United States political leader in effect urged exactly such a United States-Soviet Union single issue alliance to prevent proliferation through joint guarantees

for any country threatened by nuclear attack.¹ Joint public Soviet-American guarantees are unlikely, however, because this might result in a more or less open break with an ally; more probably, either the United States or the Soviet Union will extend some form of guarantee and the other will take no counter-measures. However, if non-aligned states such as India or Egypt acquire nuclear weapons, it is possible that the United States and Soviet Union may be willing to issue joint guarantees to other unaligned states against any nuclear threats from such regional powers.

-Conventional Arms Embargoes-

A selective arms embargo to prevent competitive arming and shorten wars is by no means a new idea. Through the Brussels Convention of 1890, European colonial powers established comprehensive regulations to

¹In June 1965, Senator R. Kennedy suggested a bilateral guarantee in his call for greater United States attention to the problem of nuclear proliferation and noted the complexity of such an arrangement by stating, "if it [the guarantee] is to be effective, and if it is not to lead to great power confrontations all over the world, [the guarantee] must be divorced from, and superior to the other policy aims of the Nations involved. We cannot protect only our friends from nuclear attack, or allow other nations with whom we are otherwise friendly to threaten others with nuclear weapons. We must stand against nuclear aggression period." New York Times, June 24, 1965.

limit the importation of arms to Africa.¹ After World War I, in accord with the view that arms competition had been a major cause of the conflict, various efforts were made to limit the arms traffic and bring it under international observation, but the refusal of the United States to ratify the Convention of St. Germain (1922) made that attempt to control the arms trade worthless. Ironically, in 1934, the United States proposed a comprehensive arrangement for the control of the arms trade, but World War II interrupted the lengthy negotiations.²

Is there any chance that the major powers today would agree to restrict their grants or sales of arms to the developing countries? Since the late 19th century, industrial countries have exported their superior military skills and/or weapons in order to cultivate the good will of foreign governments and to make contact with

¹The MIT study concludes that these were not well enforced or too effective. CIS, op.cit. V-Annex A, p.4

²Sheila Barry, The Arms Trade and Underdeveloped Areas--Some Notes, MIT Center of International Studies, 1964, (C/64-14) (p.3-6)

the national military elites.¹ Never have so many governments chosen to use this tool of diplomacy on such a wide scale as in the post World War II years. In 1963, 74 of the 79 developing countries were receiving some sort of military assistance (not including purely commercial munitions sales): 59 from non-Communist countries only, two from Communist countries only, and 13 from both. (see chart D) Three of the developing countries, India, Egypt and Israel, are also providing military assistance to a total of 16 states.

Providing military assistance accomplishes or is believed to accomplish positive political results for the donor states. From the point of view of the major powers' political interest there is little reason to even consider any form of arms embargo unless it would apply to all potential suppliers, otherwise the developing

¹ A statement by United States General E. F. Strickland, director of the military aid program in the Middle East and South Asia, gave this candid portrait of the political purpose of the military aid program. "Our training program in this country has provided a source of contact with Saudi military leaders on all levels and has thus afforded an opportunity to influence programs and decisions affecting United States objectives in Saudi Arabia. Not only has the effectiveness of the Saudi forces been increased by our training efforts, but United States policy objectives and Western ideas have been disseminated by the continued personal contact and cooperation, "New York Times, May 30, 1965

CHART D

SOURCES OF MILITARY ASSISTANCE FOR THE DEVELOPING AREAS BY REGION, 1963

Region (no. of cntrs)	Total by ideological "bloc"			Total by State												Com. States		
	Non-Com. only	Com. only	Both	Non-Communist States												SU	Others	China
				US	UK	FR	WGerm	Others	Israel	UAR	Ind.	Others	4	3	5			
Sub-Saharan				12	11	12	6	6	9	1	3					4		1 ^l
Africa ^a (29)	25	-	4 ^b															1 ^l
North Africa	2	-	2 ^c	3	2	3	1	2	-	1	-	-				2		-
Near East (12)	8	1 ^k	3 ^d	9	6	1	1	-	-	1	-	-				4		1 ^m
South Asia	2	-	2 ^e	4	1	-	-	-	-	-	1	-				2		-
Southeast Asia ^h (7)	3	-	3 ^f	5	1	-	-	-	-	-	-	-				2		2 ⁿ
Latin America ¹ (22)	19	1 ^j	-	19	-	-	-	-	-	-	-	-				1		-
TOTAL	59	2	13	52	21	16	8	8	9	3	4	5				16		4

Source: Chart by the author from data in - H. Roberts Coward. Military Technology in Developing Countries: CIS. Massachusetts Institute of Technology, (C/64-5), 1964

a. The data for Tanganyika and Zanzibar have been grouped under Tanzania, which is considered as one country.

b. Sudan, Ghana, Somalia, Tanzania

c. Algeria, Morocco

d. Iraq, Yemen, Syria

e. India, Afghanistan

f. Indonesia, Cambodia, Laos

g. no aid Ceylon

h. no aid Burma

i. no aid Jamaica, Trin/Tabago

j. Cuba

k. Egypt

l. Tanzania

m. Yemen

n. Cambodia-Laos

country will simply obtain the same weapons elsewhere. Then the states attempting the embargo have lost political and economic advantages, while the end result is the same -- the country gets arms.

Africa offers two examples of this. In 1958 when Guinea did not join the French community, the United States refused military assistance and the Soviet Union promptly donated one million dollars of military aid.¹ And in Somalia the United States, West Germany and Italy offered a joint program of military aid to equip a Somali army of 5,000 to 6,000 men, but this was refused and instead Somalia accepted a Soviet offer of weapons and supplies for an army of 20,000.²

Even among the western allies, limited arms embargoes have been difficult to obtain. Recall that despite the requests of the United States, Britain sold arms to

¹ CIX, op. cit. p. V-11

² African Report, January 1964

Guatemala in 1954, and France and Britain sold weapons to Cuba in 1960. Britain has also sold the Latin American countries innumerable warships, including two aircraft carriers, jet fighters and medium bombers that the United States would not provide.¹

The requirement for unity in embargoes is the largest hurdle to their success because of the competitive purposes underlying the donation of military assistance. Unanimous agreement between the blocs and even among countries within each bloc is unlikely because of what might be termed the 'N-1 problem.' Assuming N countries can provide a particular weapon, the more countries agreeing to an embargo, the higher the potential gains for the last countries (N-1, Nth) if they do not participate.² And perhaps even more importantly, the more 'ordinary' the weapon, the greater the number of potential suppliers and the less likelihood of agreement.

¹CIX, op. cit., p. II-45-47

²The same 'N-1' argument applies to purely commercial incentives for non-participation in a boycott. If there are 10 potential suppliers of a weapon, and 8 agree not to sell to the developing countries, then the 9th and 10th countries have a lot to gain in trade by filling all the orders.

Nevertheless, in the case of the more dangerous and threatening conventional weapons such as jet bomber aircraft, attempts should be made to impose some limitations. Of all the regions, Latin America seems most promising for an arms embargo because, except for Cuba, no country is, after the 1962 missile crisis, likely to turn to the Communist bloc for arms. And the European powers may cooperate. But in all the other regions, arms are available from both blocs. Nothing the western countries might be willing to offer in exchange for any form of conventional arms embargo would be likely to induce the Soviet Union to give up this useful entry wedge. And even if the Soviet Union might agree, Communist China would not. In any case, arms embargo agreements are intrinsically unstable; they might help to prevent "prestige" military spending in the developing areas, but in the event of a regional crisis, the major powers would act as their political interest dictated anyway.

Currently, no western country is economically dependent on the arms trade (see Chart E); nevertheless, this is a lucrative enterprise. Therefore, the western governments and especially the United States, as the most important commercial source of armaments, should take all

CHART E

COMMERCIAL ARMS TRADE WITH THE DEVELOPING AREA: 1960-62¹

Country	Total arms trade in \$ million (US) 1960, 1961, 1962		Proportion of total arms trade with developing countries (per cent)				Arms trade as proportion of total national export trade: (per cent)			
	aircraft	military arms	aircraft	military arms	aircraft	military arms	aircraft	military	aircraft	military
United States	\$3,000 ²	\$684	60 61 62	60 61 62	60 61 62	60 61 62	60 61 62	60 61 62	60 61 62	60 61 62
Great Britain	348	228	62 72 72	- - -	- - -	- - -	6 5 3.3	1 1 1	1 1 1	1 1 1
France	380	4.6	53 52 55	32 34 37	117 .6	1	1	1	1	1
Italy	157	52.8	26 19 25	- - -	1.4 2 1.9	- - -	- - -	- - -	- - -	- - -
Belgium-Luxembourg	47	164.5	- - -	19 22 21	- - -	- - -	- - -	- - -	- - -	- - -

Source; Chart by the author from data in:

Sheila Barry, The Arms Trade and Underdeveloped Areas--Some Notes. Center of International Studies, Massachusetts Institute of Technology, 1964 (c/64-14)

¹The following countries also sell arms to states in the six regions but their trade in weapons is less than 1% of total trade: Sweden, Federal Republic of Germany, Netherlands, Switzerland, Canada.

²This figure includes the sale of commercial aircraft; the total value of military aircraft sales probably is from \$800 to 1200 million.

due precautions to be certain that manufacturers are not permitted to supply weapons to developing countries if this would spark or accelerate purely regional antagonisms.

CONCLUSION

Two kinds of time pressures impart some urgency to the matter of arms control in the developing countries. First there is the danger implicit in the further development of military technology in the larger developing states, the possibility that in the next five to 10 years more than a few will have manufactured or received nuclear bombs, bomber aircraft, and some missiles. Secondly, many countries seem intent on expanding their present conventional military capability, especially in Africa and the Near East. Thus, with the passing of time, it will be increasingly more difficult to obtain any significant arms limitations because these are always easier to negotiate when designed to prevent future acquisition of weapons rather than when reductions of existing forces are required.

Practically no political effort has been expended by the governments of the major powers or the developing states in search for regional arms control measures. Despite the numerous declarations of the developing countries' representatives at the United Nations and international forums about the need for disarmament and the economic waste of the major powers' arms competition, there have

not even been any serious negotiations on the control or reduction of arms in any of the six regions we have been considering. Scholars have also given far too little thought and attention to this complex issue.

What can be done about this neglect of an important international problem? When there is no overt interstate hostility and aggression, arms control does not appear a matter of political urgency--and few governments can manage to deal with more than the first priority problems. Then once military conflict seems imminent, arms control, of course, is not practical or possible. Until some way is found to break this "indifference-impossibility" government policy cycle, progress on any types of arms control for any of the regions is unlikely.

APPENDIX I

MILITARY FORCES IN THE NEAR EAST: 1963

Country	Population Thousands	Total Armed Forces	Budget Millions \$US 1963	Budget as % of GNP	Total Police Force
Turkey	29,100	452,000	235.0	1.08	-
U.A.R. (Egypt)	27,300	120,000	317.3	7.67	150,000
Iran	21,200	208,000	170.0	6.22	33,000
Saudi Arabia	6,960	32,000	150.0	14.19	-
Iraq	6,730	74,000	121.6	8.14	19,182
Syria	5,070	65,000	68.3	8.91	7,400
Yemen	4,550	10,000	-	-	-
Israel	2,290	70,000	193.3	6.75	-
Jordon	1,730	36,000	59.1	21.03	-
Lebanon	1,720	10,800	21.7	3.49	3,250
Cyprus	580	2,000	1.2	152	2,000
Kuwait	231	2,400	33.6	4.53	-
TOTAL	107,461	1,082,200	1371.1	7.5	214,832

Source: Chart by the author from data in - H. Roberts Coward. Military Technology in Developing Countries. CIS. Massachusetts Institute of Technology, (C/64-5), 1964

MILITARY FORCES IN SOUTH ASIA: 1963

Country	Population Thousands	Total Armed Forces	Budget Millions \$US 1963	Budget as % of GNP	Total Police Force
India	453,000	584,000	1820.0	5.00	504,016
Pakistan	96,600	252,700	240.0	3.31	-
Afghan- istan	14,000	90,000	13.0	1.86	21,000
Ceylon	10,400	8,880	14.4	.99	9,267
Nepal	9,580	9,000	2.8	.59	-
TOTAL	583,580	944,580	2090.2	2.33	534,283

Source: Chart by the author from data in - H. Roberts Coward. Military Technology in Developing Countries. CIS. Massachusetts Institute of Technology, (C/64-5), 1964

MILITARY FORCES IN SOUTH EAST ASIA:¹ 1963

Country	Population Thousands	Total Armed Forces	Budget Millions \$US 1963	Budget as % of GNP	Total Police Force
Indonesia	97,800	396,000	431.0	1.92	-
Thailand	28,000	134,000	77.6	2.97	-
Burma	23,200	63,900	97.0	6.87	-
South Vietnam	14,929	216,000	175.0	12.37	-
Malaysia	7,330	8,000	52.8	1.60	28,500
Cambodia	5,750	30,000	36.3	7.19	-
Laos	1,890	80,000	21.4	15.61	-
TOTAL	178,899	927,900	891.1	6.83	28,500

¹Excluding North Vietnam for lack of data.

Source: Chart by the author from data in - H Roberts Coward. Military Technology in Developing Countries. CIS. Massachusetts Institute of Technology, (C/64-5), 1964

MILITARY FORCES IN NORTH AFRICA

Country	Population Thousands	Total Armed Forces	Budget Millions \$US 1963	Budget as % of GNP	Total Police Force
Morocco	12,200	32,670	93.0	4.28	24,300
Algeria	11,500	65,000	98.0	4.22	10,000
Tunesia	4,300	20,000	11.4	1.46	4,600
Libya	1,240	6,000	14.0	14.43	11,000
TOTALS	29,240	123,670	216.4	6.1	49,900

Source: Chart by the author from data in - H. Roberts Coward. Military Technology in Developing Countries. CIS. Massachusetts Institute Of Technology, (C/64-5), 1964

MILITARY FORCES IN SUB-SAHARAN AFRICA¹

Country	Population Thousands	Total Armed Forces	Budget Millions &US 1963	Budget as % of GNP	Total Police Force
Nigeria	36,500	8,000	28.0	.90	23,000
South Africa	16,500	25,000	294.0	3.24	29,646
Ethiopia	15,200	30,000	17.9	1.34	30,000
Congo (Lpvl)	14,800	35,000	10.0	.78	15,000
Sudan	12,500	11,000	21.5	1.82	10,000
Tanzania	9,560	1,600	1.8	.24	5,000
Kenya	8,680	2,650	.6	.09	11,900
Ghana	7,150	8,000	35.3	2.18	9,000
Uganda	7,020	1,000	1.5	.31	5,500
Malagasy Republic	5,730	2,600	9.0	1.53	5,900
Upper Volta	4,500	1,000	2.8	.67	1,335
Cameroun	4,330	2,700	15.6	4.37	5,900
Mali	4,310	3,100	8.7	2.15	1,250
Ivory Coast	3,380	4,000	8.7	2.54	2,280
Guinea	3,260	5,000	5.9	3.40	3,300
Niger	3,100	1,200	3.4	1.18	1,500
Senegal	3,050	2,500	10.0	3.70	4,000
Chad	2,720	500	1.5	.50	1,450
Ruanda	2,634 ^{1 2}	900	1.3	.70E	650
Sierra Leone	2,470	1,850	2.2	1.19	2,000
Burundi	2,213 ^{1 2}	800	1.2	.70E	850

¹Excluding Malawi, Zambia, Southern Rhodesia, Cambia, for lack of data.

²Population figures for Ruanda and Burundi taken from Janowitz, The Military in the Political Development of New Nations, University of Chicago Press, Chicago, 1964.

Source: Chart by the author from data in - H. Roberts Coward.
Military Technology in Developing Countries. CIS.
Massachusetts Institute of Technology, (C/64-5), 1964

MILITARY FORCES IN LATIN AMERICA

Country	Population Thousands	Total Armed Forces	Budget Millions \$US 1963	Budget as % of GNP	Total Police Force
<u>Caribbean</u>					
Bahama	7,070	100,000	221.0	7.68	-
Cuba	4,350	5,500	6.3	1.48	2,500
Dominican Republic	3,220	18,500	23.1	3.20	16,000
Jamaica	1,640	-	0.1	.07	4,250
Saint Vincent/					
Grenada	894	-	0.9	.23	2,100
TOTAL	17,174	124,000	251.4	2.53	24,850
<u>Central America</u>					
Costa Rica	37,200	60,600	105.6	.86	(7,000)
Guatemala	4,020	7,900	8.9	1.20	4,050
El Salvador	2,810	6,600	6.2	1.13	4,500
Honduras	1,950	3,700	3.8	.93	2,300
Paraguay	1,580	4,900	4.2	1.30	-
Panama	1,270	1,200	2.5	.48	2,000
		(Civil Grd)			
	1,140	3,400	1.0	.27	225
		(Nat'l Grd)			
TOTAL	49,970	88,300	132.2	.88	20,075
<u>South America</u>					
Brazil	75,300	222,000	214.7	1.53	255,000
Argentina	21,800	130,000	193.4	1.82	(27,000)
Colombia	14,800	37,000	37.9	.68	30,000
Chile	11,400	73,000	45.5	3.17	24,000
Ecuador	8,000	42,000	148.0	3.05	23,500
Peru	7,870	35,000	133.7	1.66	9,130
Venezuela	4,600	10,700	23.3	2.31	5,800
Uruguay	3,550	15,000	5.0	1.38	5,600+
Paraguay	2,910	14,000	12.6	1.02	10,400
Bolivia	1,860	10,500	6.6	3.04	5,000+
TOTAL	152,090	589,200	820.7	1.97	395,430
AL FOR IN AMERICA	219,234	801,500	1204.3	1.75	440,355

Source: Chart by the author from data in - H. Roberts Coward. Military Technology in Developing Countries. CIS. Massachusetts Institute of Technology, (C/64-5), 1964.

APPENDIX II

DEVELOPING COUNTRIES ASSOCIATED WITH WESTERN

DEFENSE PACTS AND OTHER GUARANTEES OF TERRITORIAL INTEGRITY

Defense Pacts and Guarantees											
Region	U.S.	SEATO	CENTO	NATO	OAS	U.K. & Commonwealth	France & Commun.	Arab League	E.D.C.	UAM	Other
Sub-Saharan Africa	1					5	9	1	4	14	Ethiopia Kenya
North Africa	-					1		4			
Near East	2		2	1		1		8			
South Asia	1	1*	1			3					India
South East Asia	1	1				1					
Latin America					19						
TOTAL	5	2	3	1	19	11	9	13	4	14	

-96-

Source: Chart by the author from data in - H. Roberts Coward, Military Technology in Developing Countries. CIS. Massachusetts Institute of Technology, (C/64-5), 1964